

FINAL YEAR PROJECT REPORT

“AN UX DESIGN FOR A SOCIAL MEDIA APPLICATION”

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This Report Presented in Partial Fulfillment of the Requirements for the
Degree of Bachelor of Science in Multimedia and Creative Technology

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DAFFODIL INTERNATIONAL UNIVERSITY

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APPROVAL

This project titled “AN UX Design for a Social Media Application”, submitted by MD Shaon Alam to the Department of Multimedia and Creative Technology, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Multimedia and Creative Technology and approved as to its style and contents. The presentation has been held on 18th October 2020.

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DECLARATION

I hereby declare that this project has been done by me under the supervision of **Dr. Shaikh Muhammad Allayear**, Associate Professor & Head, Department of MCT Daffodil International University. I also declare that neither this project nor any part of this project has been submitted elsewhere for the award of any degree or diploma.

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I would like to thank my entire coursemate at Daffodil International University, who took part in this discussion while completing the course work.

Finally, I must acknowledge with due respect the constant support and patients of my parents.

ABSTRACT

We are living in an era where we can't think of a day without social media. Social media is a part of our life now. From our start of the day to the end we are sharing our day-to-day moments in social media like Facebook, Instagram, Snapchat, etc. Social media connects us around the world, also with our friends. Now we don't call our friends on phone we just text them on social media. Social media is not only for socializing or connecting friends, but it also helps us build a career with the help of searching for jobs and maintain a corporate profile on LinkedIn.

From there we came up with an idea of a social media application for our university by naming it **MCTGRAM**, where everyone is connected. As we have many departments, faculties, students, teachers we don't know everyone. So, we think this will help us to connect, what other departments are doing, their thoughts, teachers from other departments will get to know us and so do we, we can also be benefited from many other options.

So, as we are the student of **Multimedia & Creative Technology**, we are going to make the UI (User Interface) design based on UX (User Experience), and also, we will show how the application will work by making a software prototype of that. We used Adobe Illustrator, Adobe Photoshop, Adobe XD, Flutter for the project to be done.

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LIST OF ABBREVIATION

Abbreviation

UI/UX = User Interface & User Experience

HCI = Human-Computer Interaction

Chapter 1

Case Study

1.1Case Study Overview: Nowadays we all are connected to social media. From our start of the day to the end we are sharing our day-to-day moments on social media like Facebook, Instagram, Snapchat, etc. It has come to that state that we can't think a day without it.

Social media associates us around the globe, likewise with our companions. Presently we don't call our companions on the telephone we just content them on Social media. Social media isn't just for mingling or interfacing companions, it additionally helps us building vocation with the assistance of looking through positions and keep up a corporate profile on LinkedIn. We all are connected with our friends and family through social media.

But in our university life, there is a gap in-between the teacher, student, and alumni. When the new students come in, they don't get introduced to the seniors, they don't understand many things in the 1st semester. There are many job and internship opportunities that our university might receive from different firms that couldn't reach us. Sometimes we miss important seminars and workshops only because we don't get notified. There are no course-wise groups so sometimes we miss our classes for wrong time information. Many students are not aware of the activities of different clubs that our University and department have.

So, we think of it and end up with a solution for it. There are many social sites that we use on our day to day basis but those do not come with the features that we need in our academic purpose, so why don't we create our own social site for our department that helps us to come out from the difficulties that we face in our campus life.

1.2 Problem Identification: At first, we thought about our whole university. We came up with an idea for designing a UI on Social media application for Daffodil International University. We use social media on our daily basis. But Daffodil is a huge varsity with so many departments, students, faculties, and facilities. But we are not connected to each other. We do not come to know about the many facilities that our university has, maybe we couldn't come to know about the many opportunities that our university provides us. Furthermore, we are not notified about many job and internship opportunities from many farms. We also don't get notified about many seminars and workshops that might be beneficial to us as we don't often check our emails.

So, we think of a platform that connects the whole university process through it. The platform must have the features that a student needs in his academic purpose. There is a lack of communication gap between the teachers, students, alumni. A student often seeks a study plan, so this feature should add. Then sometimes many students search for job and internship opportunities that our university might have offers from different farms. A Course-wise group should be needed for the class reminder and notification for class tests and assignments. Later when we discussed it with our supervisor, he suggests us to think about our department only, later if it comes out with possibilities then we will think about the whole university. So, we started working on that.

1.3 Objectives: Our main focus is to connect all the teachers, students & alumni in one platform. This app will be beneficial to our departments in many ways. As there is a new batch comes in every semester so it will connect them with others and the teacher alumni's through it. By seeing the alumni profile a student can destine his/her interest field of work. Students can get job opportunities and internship offers from a different farm that contacts our department. There is a Portfolio section where a student can upload his/her work with criteria so that it can help the student to easily apply for a job or internship. The curricular activities can be maintained through this, as we don't often check our emails so there is an option for course wise groups, on that a supervisor post the action and direction that a student should follow so that a student can get notified day to day classes so he/she won't miss a class. Different seminars and workshops that might

be helpful for us can be posted here so that we won't miss the chance. The new student will be inspired by seeing the seniors' profile and works, also can get the information of different job sectors by seeing the alumni profile as the alumni are working in different sectors. After all, this will help the student, teacher, and alumni to reduce the communication gap between them and by sharing thoughts and works so that everyone can get to know many things and enrich their knowledge in an interesting field.

1.4 Related Work & Research: We choose three applications as these are directly competitive to our thinking. These are Facebook, LinkedIn, and Instagram.

Facebook: It's a common social network site that everyone uses. According to Statista^[10], about 2.7 billion people use Facebook^[1] and this amount is on the increase. This app has many features. You can add people around the globe by creating a profile, you can also post your photos and thoughts, and you can also chat by text, call, and video chat, even more, you can play online games here. You can see the news updates around the globe. You also can do online business with this popular social site and many more useful things. People of all ages use this social service.

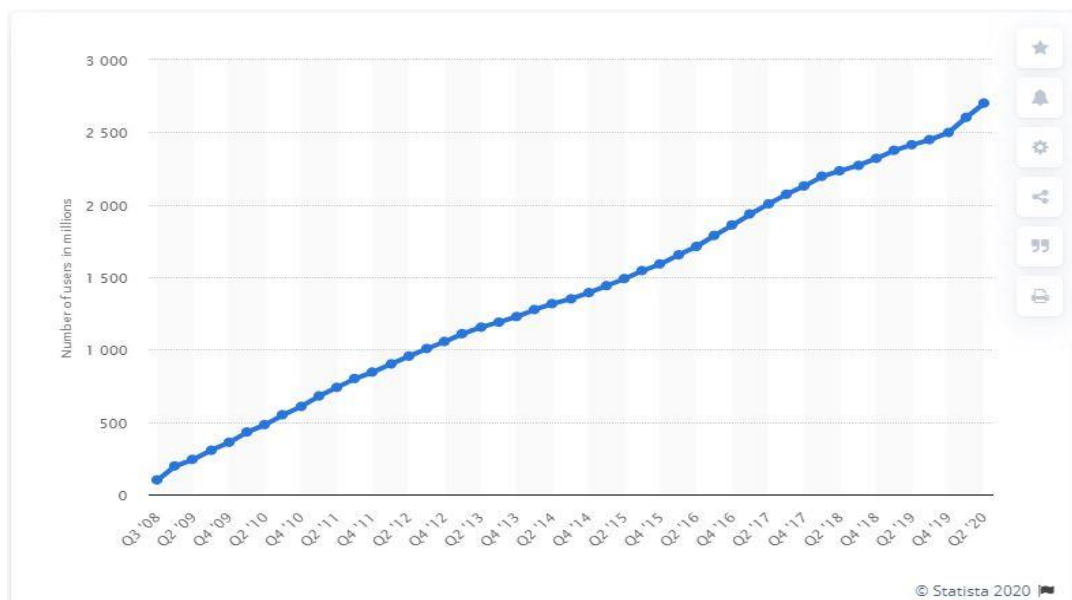


Figure1.1: Facebook user growth

Instagram: Instagram^[2] is a photo and video sharing application owned by Facebook. It became popular because of its colorful design and looks. According to Statista^[10], it has more than 1 billion monthly active users that make it popular social networks. The app allows users to upload media that can be edited with filters and organized by hashtags and geographical tagging^[15]. Users can browse other users' content by tags and locations and view trending content. You can also chat here. Though it is popular it has limited usefulness. This service can be operated on a mobile app and website. Most of the user of this service is young.

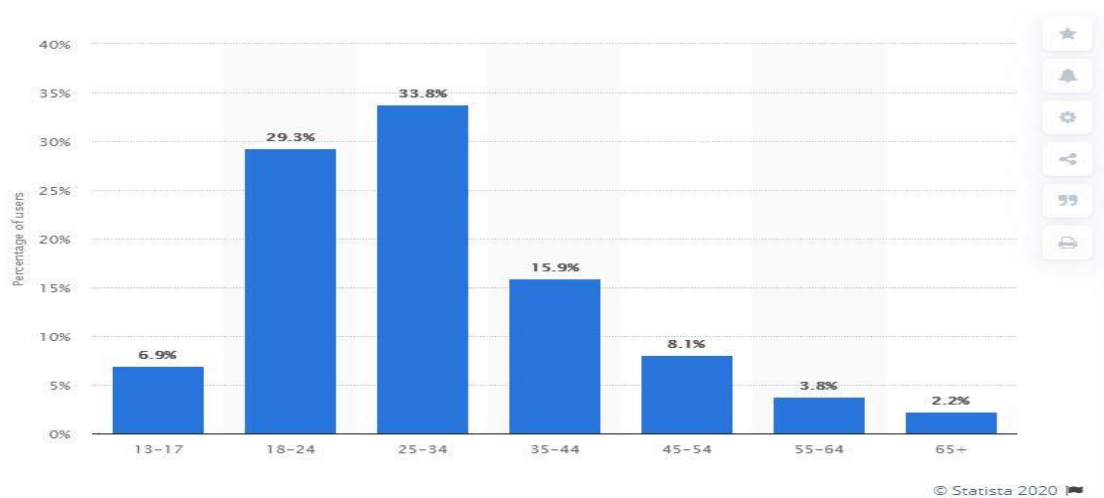


Figure 1.2: Instagram user by age perception

LinkedIn: Recently LinkedIn has become a popular social site for the corporate field. It's actually a business and employment-oriented service that operates through websites and mobile apps. The goal of this is to create economic opportunity for every member of the global workforce and make more productive manpower. Young and middle-aged people are a user of this service. Job opportunities, career up to date, professionals' thoughts, modern working tools, and usefulness you can find many things here to develop your career^[3]. Can apply for jobs and search for opportunities through this service. According to LinkedIn, there are 706+ million users from more than 200 countries worldwide

1.5 Competitive Analysis: Before we get to work, we research what common options they have, then we make into a look at what exceptional options they got, after that, we make a comparison to our thinking that will make our idea different. The table below will show a summary of our research work.

Table 1.1: Competitive analysis survey;

Content	Facebook	LinkedIn	Instagram
Profile	Yes	Yes	Yes
Newsfeed	Yes	Yes	Yes
Messaging	Yes	Yes	Yes
Content sharing	Yes	Yes	Limited
Story mode	Yes	No	Yes
Add friends	Yes	Yes	No
Follow a person	Yes	No	Yes
Group Creation	Yes	Yes	No
Group by category	Yes	No	No
Search people	Yes	Yes	Yes
Live & News	Yes	No	No
Academic activities monitoring	No	No	No
Portfolio	No	Limited	No
Categorized Account	No	No	No
Job offers	Yes	Yes	No
Job by Profile	No	Yes	No
Linking other accounts	Yes	No	No
Corporate Profile	No	Yes	No

If you look into the table there are many common options that a social site has. But all the sites don't have similar criteria. Some exceptions make each application unique.

1.6 Hypothesis of Your Solution: We discussed the competitive analysis. So here we will discuss about the possible outcome of our project. We stated our objective of this project now we will discuss its usefulness and how it going to be work. So, we decide that in our design we merge all the things in our app. This app will collaborate with some unique features that make our app different from the others.

First, we are designing this application only for our department so, this will connect all the teacher-student alumni. No outsider is allowed. It will be a private platform for our department, other sites are public anyone can use that but our system is only allowed for our department. Every person has to log in with the email that DIU provided, so outsiders can't register.

Like other apps we include options like sharing, adding friends, messaging and so other common features that a social application must-have. But what makes our application exceptional. Well, we add features like job finding for multimedia students, Portfolio segment, course wise groups, categorized profile for the teacher, student, and alumni, adding professional profiles in the portfolio section, class notification, notification about useful seminar and workshop. Academic functions like the Student portal can be accessed through this.

So, it will be an application that everyone like to use it with these features.

Chapter 2

User Research & Discovery

2.1 Target User: The user of this application will be the teacher, students, and alumni of Multimedia & Creative Technology because this application is designed for this department.

Age Range of users between 18 years to 60 years.

2.2 User Persona: User persona is a hypothetical archetype of an actual user profile to their practical life behavior patterns. Creating user personas can help understand a product's user's needs, experiences, behaviors, and goals. And it can also help to identify with the user demands. When you research a user, you have to study them and map their usual days, lifestyles, and behavior patterns, and more, to be able to create something meant for user uses. And help to gather knowledge of user behavior, user-focused reasoning, and better accessibility. Client personas advantage organizations to make consistency. What's more, helps to accumulate information on client conduct, client-centered thinking, and better availability. Fundamental client persona tips that ought to follow each item maker is to utilize a guide that portrays your client/client excursion, delineations, and visuals to accentuate persona data, feature normal measurements, and key contrasts, sliding scales to characterize client qualities, Keep them straightforward.

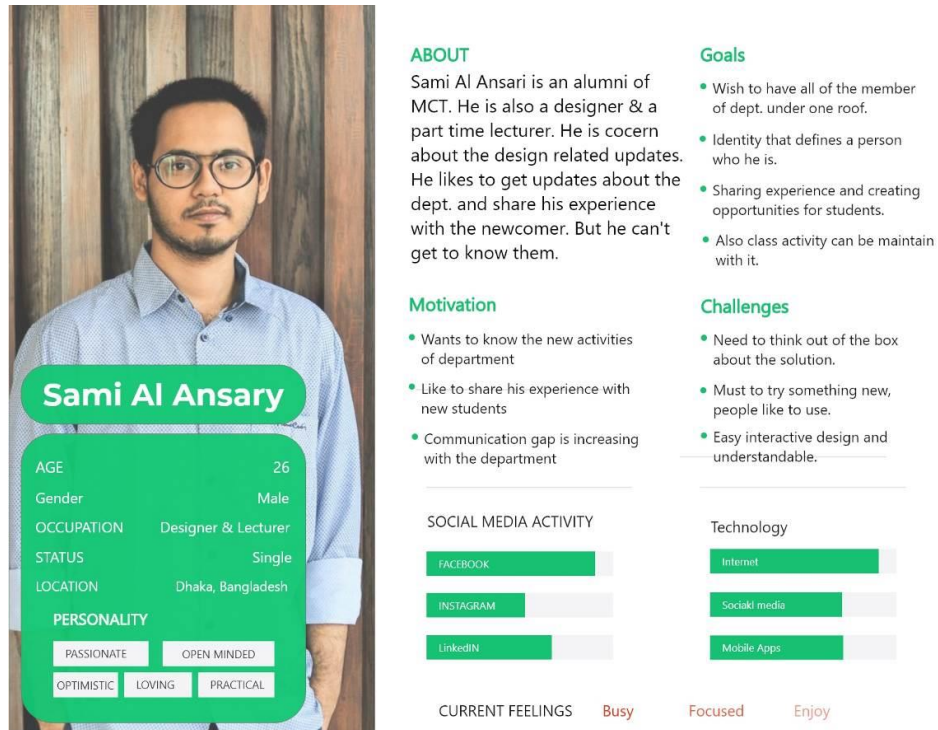


Figure 2.1: User Persona 1

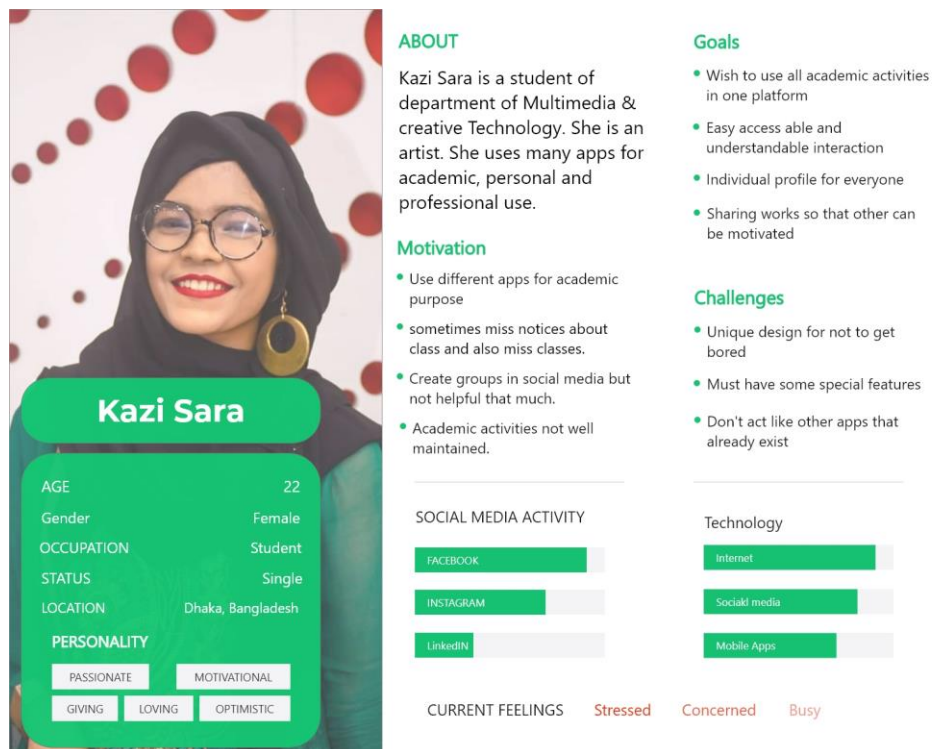


Figure 2.2: User persona 2

2.3 Survey Questions: After doing the research work and set the objective of our project we need user feedback about the project. For that, we need to do a survey. So, we made a question and answer section with google sheet and asked the people of our department to answer them so that we can analyze the user thinking and what they want. Based on the survey, I find it challenging and interesting in human nature and their interest. This is a method to use must before creating a project. Because everything we do, we do it for the user.

Here we attached our survey documents that show the result.

Select Your Current Position.

20 responses

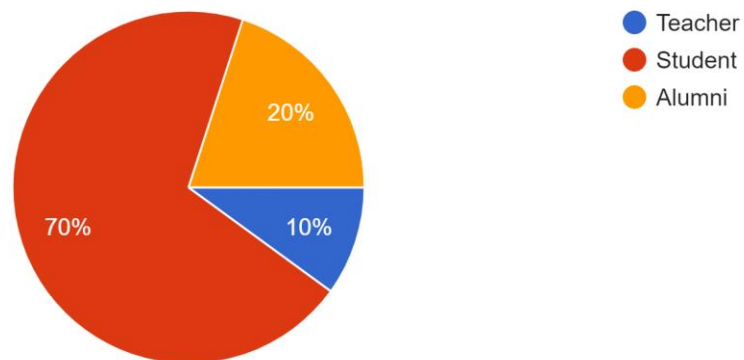


Figure 2.3: Survey Q. 1

Gender
20 responses

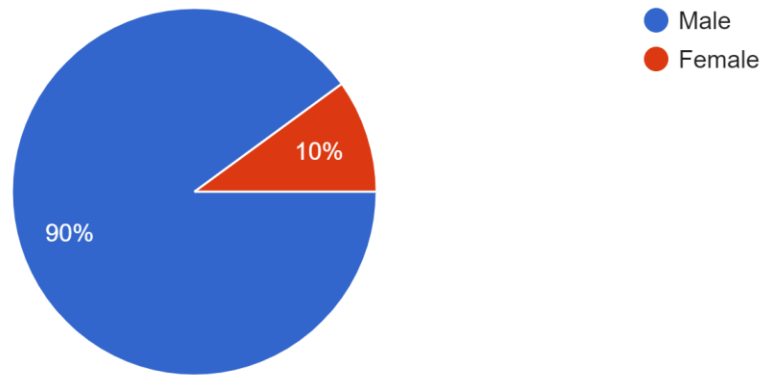


Figure 2.4: Survey Q. 2

Select your age Range
20 responses

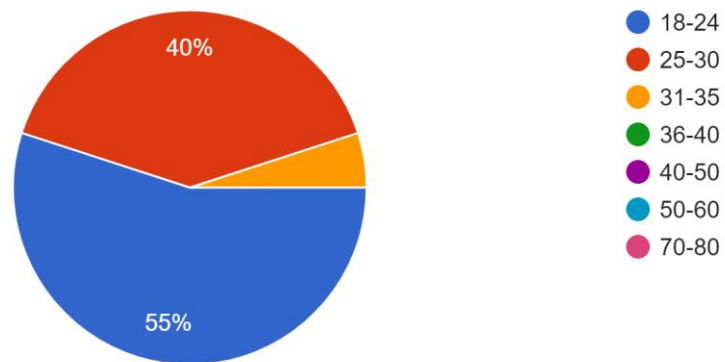


Figure 2.5: Survey Q. 3

Which device currently you are using?

20 responses

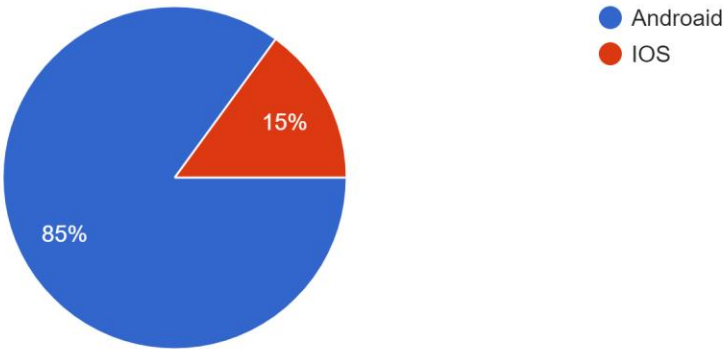


Figure 2.6: Survey Q. 4

Do You Think DIU MCT Department Need a Social App For Students And Teachers & Alumni?

20 responses

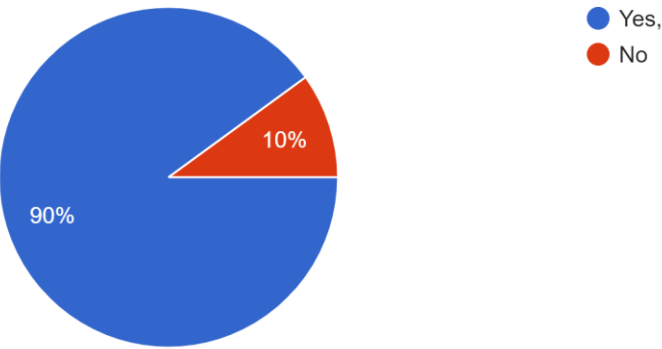


Figure 2.7: Survey Q. 5

Platform Compatibility

20 responses

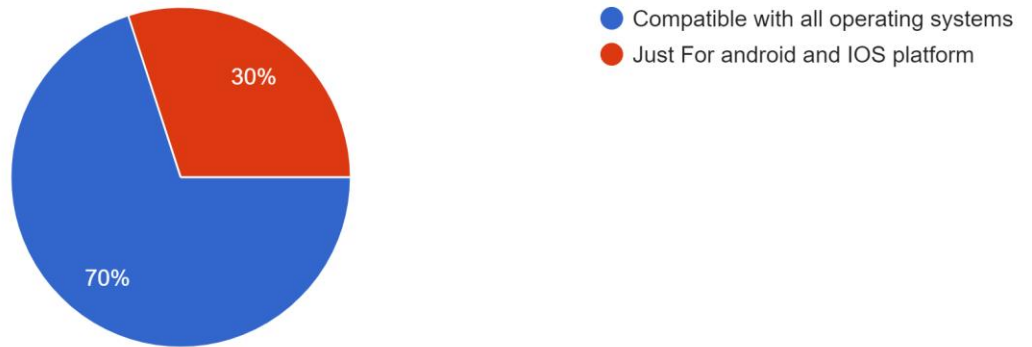


Figure 2.8: Survey Q. 6

Are You Up to date with These Platforms?

20 responses

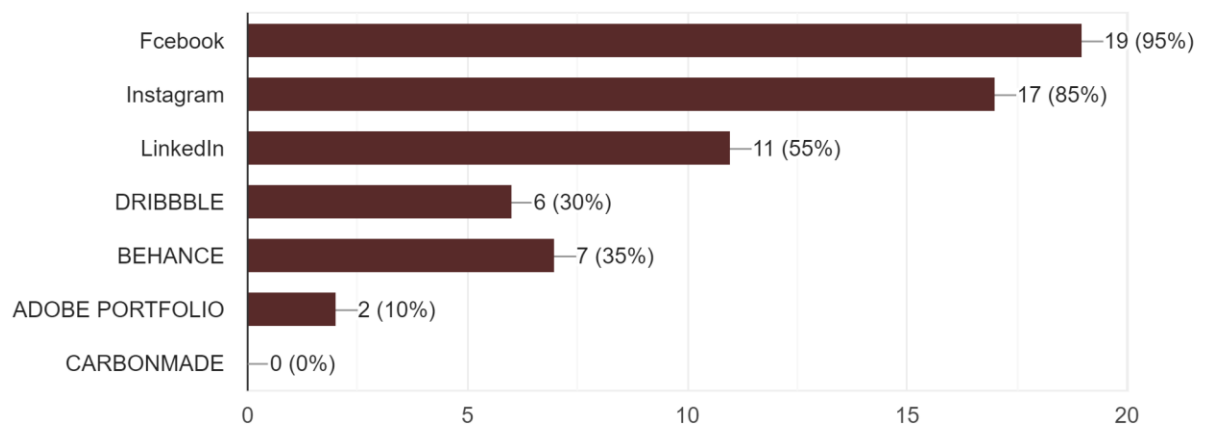


Figure 2.9: Survey Q. 7

Games you like to play

20 responses

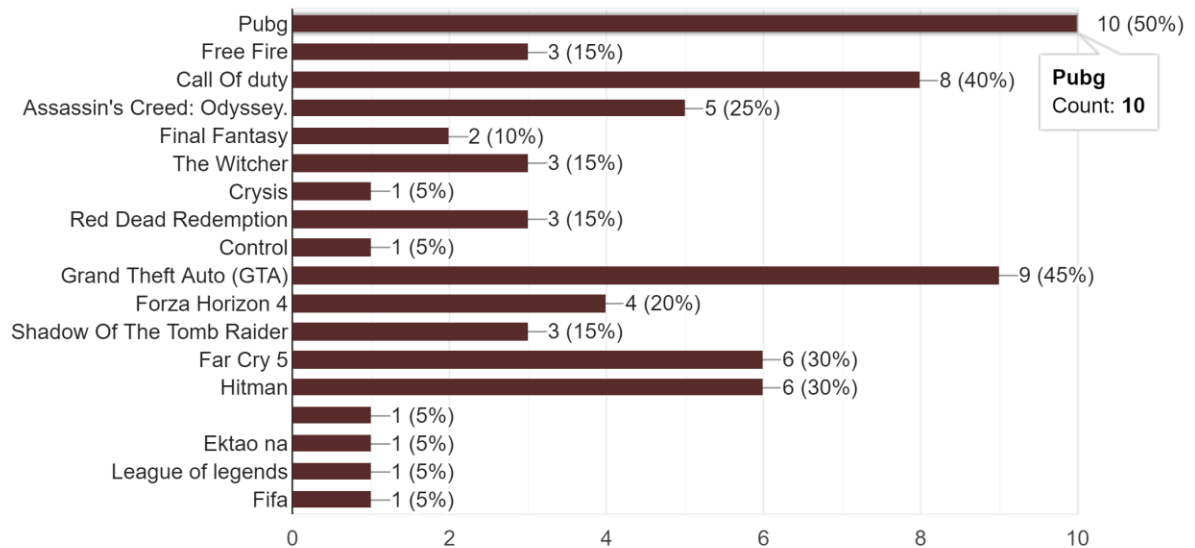


Figure 2.10: Survey Q. 8

Which Features should This app should have?

20 responses

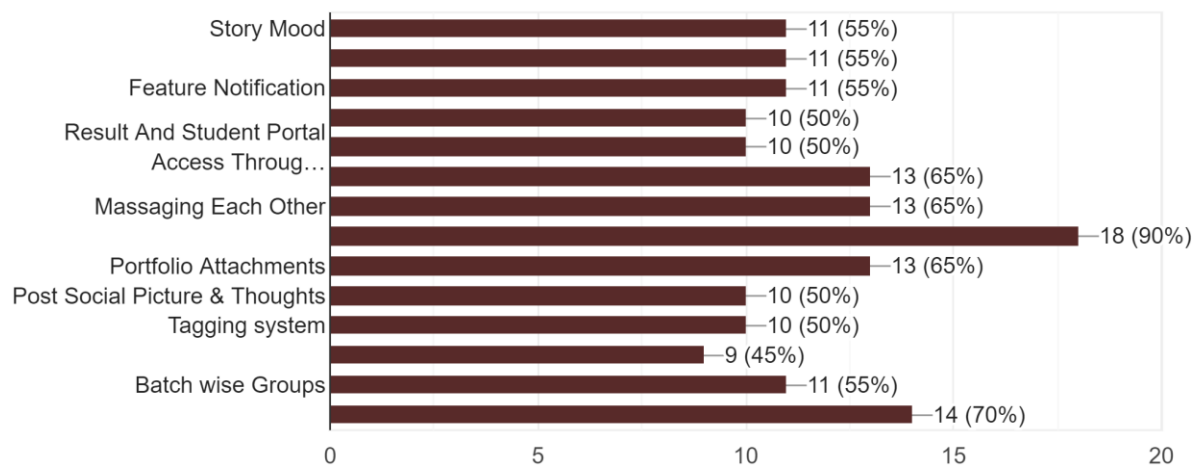


Figure 2.11: Survey Q. 9

Which App do You Use Most?

20 responses

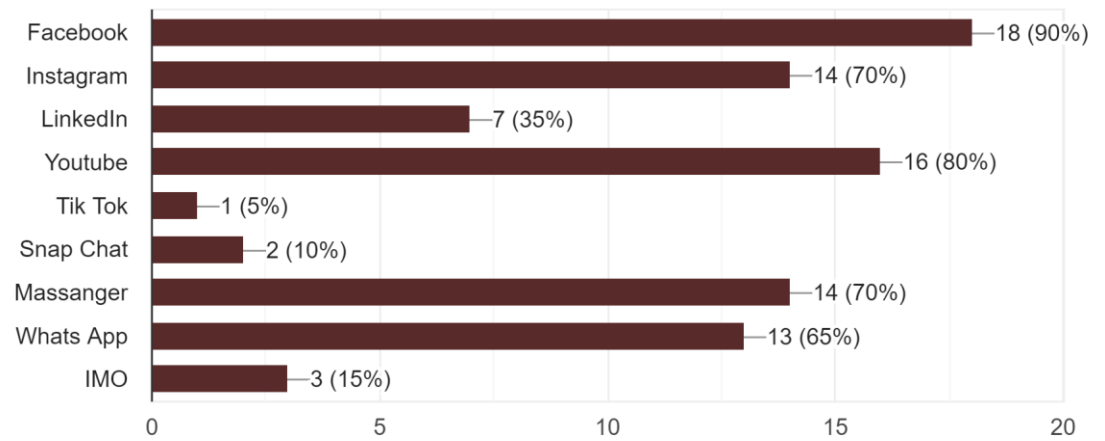


Figure 2.12: Survey Q. 10

Do You Prefer Futuristic UI Design Or Classic?

20 responses

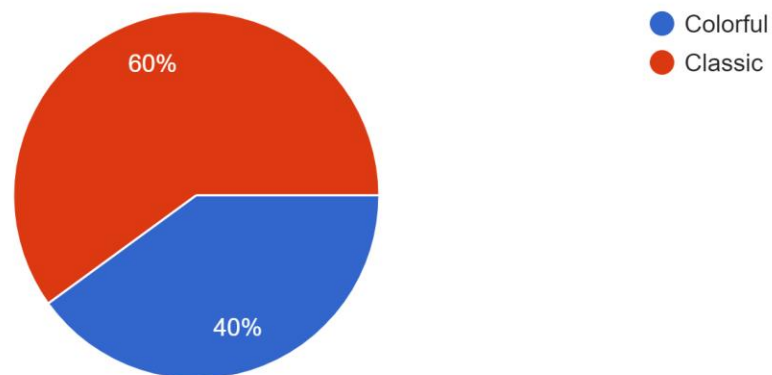


Figure 2.13: Survey Q. 11

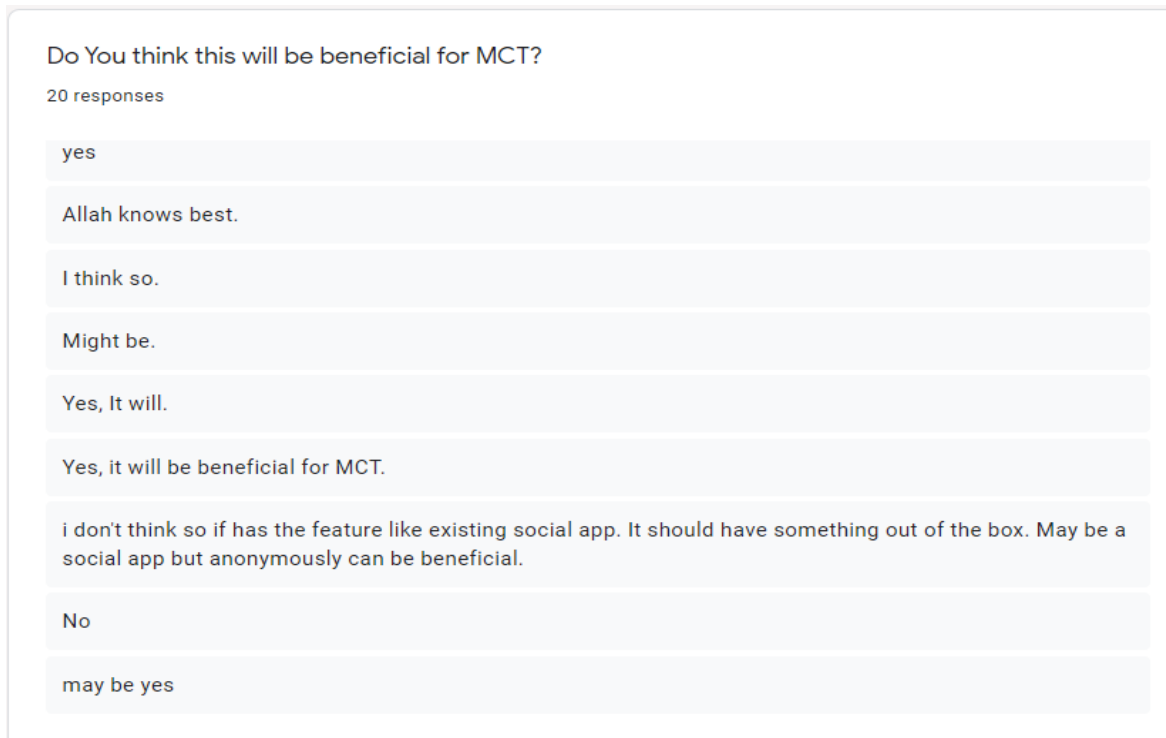


Figure2.14: Survey FAQ 1

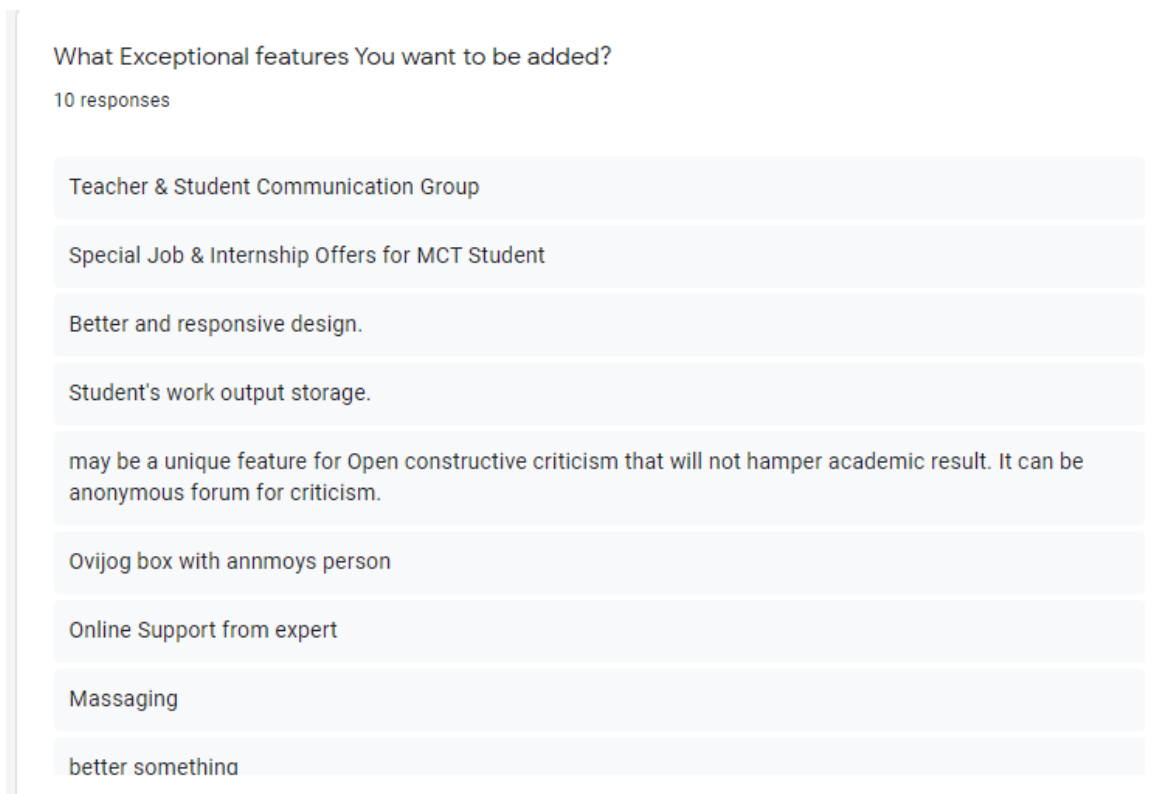


Figure 2.15: Survey FAQ 2

2.3.1 Empathy Mapping: As UX experts, we must backer for the benefit of the client. Be that as it may, to do it, not exclusively should we profoundly comprehend our clients, however, we should likewise enable our partners to get them and organize their requirements. Empathy maps, broadly utilized all through spry and plan networks, are an amazing, essential device for achieving both. An empathy map is a synergistic portrayal used to express our opinion of a particular sort of customer. It externalizes data about customers to 1) make a typical cognizance of customer needs, and 2) control in decision making. An empathy map is a straightforward, simple to-process visual that catches information about a client's practices and perspectives. It is a valuable device to assists groups with bettering to comprehend their clients. The planning cycle can help incorporate exploration perceptions and uncover further experiences about a client's needs.

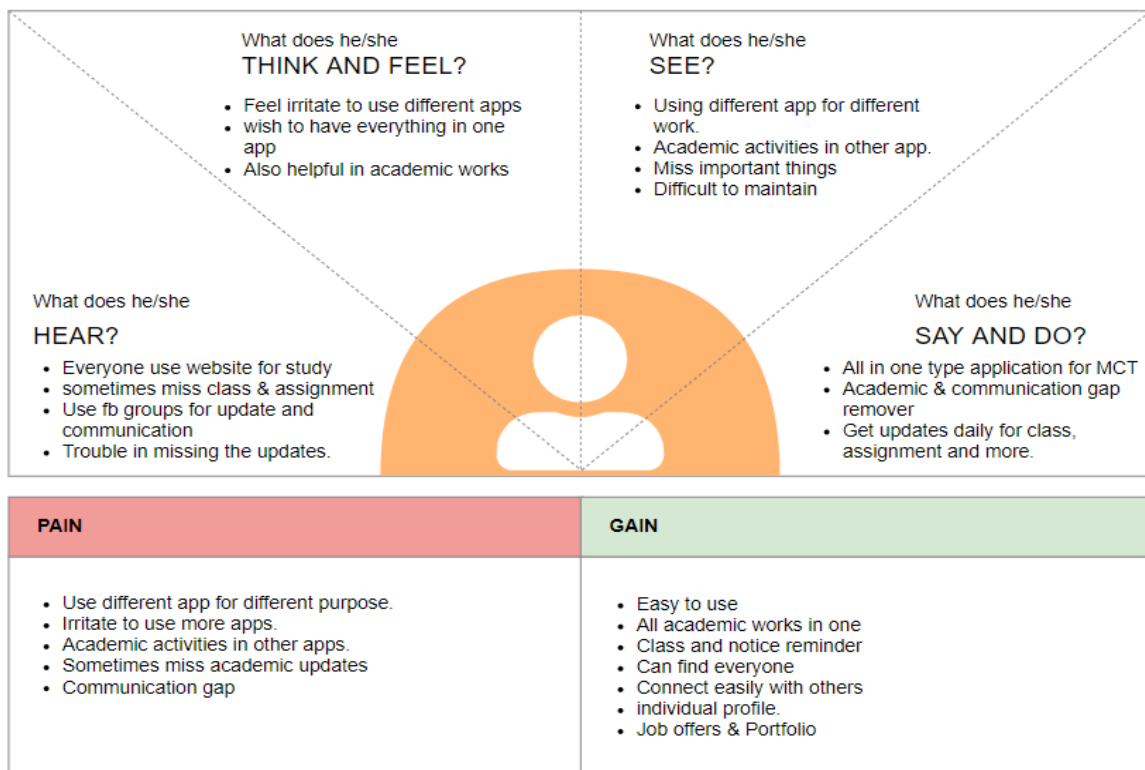


Figure 2.16: Empathy Mapping

2.4 User Analysis: It is an important part of UX design. When you are thinking of the implementation of design you must have to analyze the user. In this part you need to know what user thinks, users like and dislikes, user's geographical situation, user education qualification, user culture. So, User examination is the center technique for investigating the field of a startup. Gathering information from the individuals of their day by day life, their utilizations, and requests are the most important intention for making a site more proficient. There are three stages we followed to keep up the client examination.

2.4.1 User Psychology: All that can occur in a client's mind is important when they use your design. UX Design can influence that brain from numerous points of view. Furthermore, that is what you're going to realize: your mind, on a plan. UX Design is the act of making nonrandom impacts in individuals to take care of an issue. As such, you cause them to feel, think, and do stuff—deliberately. Hence, the more you comprehend your clients' emotions, contemplations, and activities, the better fashioner you are. So, it the most prior thing to understand user psychology. In our design, we tried our best to implement user psychology with the design.

2.4.2 Geographical Psychology: Geological psychology is a developing subarea of research worried about the spatial association of psychological wonders and how individual characteristics, social elements, and physical highlights of the environment add to their association. Our environmental factors are profoundly persuasive when it goes to our mentalities and practices. Notwithstanding social impact, biological impact in territories is additionally influencing our characters. The natural impact is the possibility that highlights the physical climate influence individuals' musings, sentiments, and practices.

2.4.3 Education/Culture: To understand user likes and dislikes you have to pay attention to the user education qualification and which geographical location he belongs to. This matters in user choices, how they think. It's a psychological perspective view of a user that depends on the education qualification of a user and

what culture they belong to. For example, you can find a huge difference in the choices of an educated person and an illiterate person, then when you choose two educate person from different culture their choices will be different also. It makes a huge impact on user experience-based design. We need to understand what they want, what are they capable of doing, their choices. We make this project for our department, and everyone here is educated so we need to focus on their choices and likes and dislikes. We did that in our survey and user persona analysis.

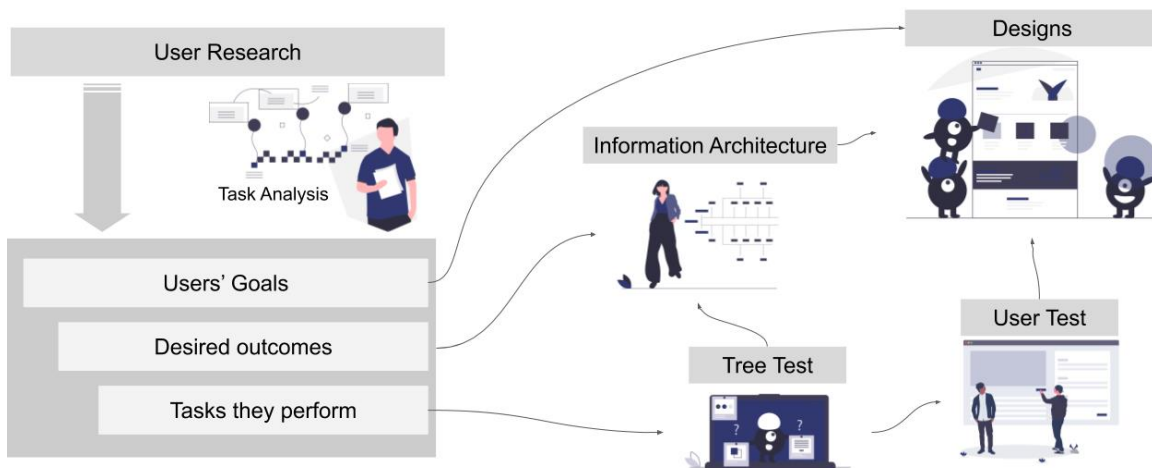


Figure 2.17: User Analysis

2.5 Human Error and Constraints: To err is human. Human commits errors and no person is right without fail. We intended to be committed botches and understand the error. Later on, we commit ourselves right by comprehending those errors by applying various thoughts and applications. There are two sorts of blunders that clients can make, slips and missteps.

Visibility of system status. Its mean user should always be able to tell what the application is doing and what state it's in. They should not have to guess or remember things. The system shows them feedback and guidance. When human interaction with the software, they often put wrong info, then the AI of the software detects that and make an error input warning, and ask the human to put the right information. It is a method used for user privacy safety.

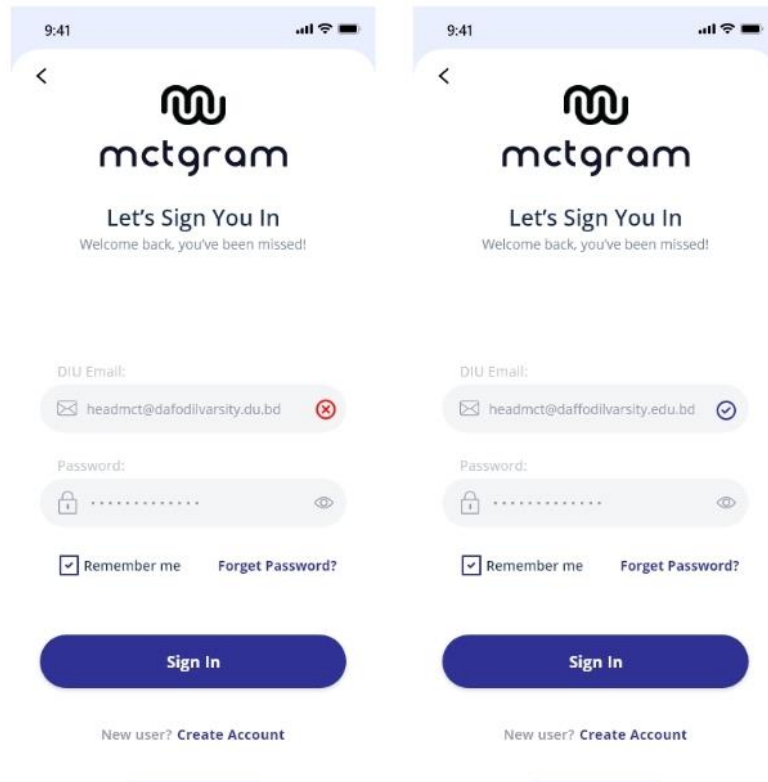


Figure 2.18: Human error & Constraints

2.6 Ergonomic Factor Analysis: The word ergonomics comes from the Greek word “ergon” which means work and “nomos” which means laws. It's essentially the “laws of work” or “science of work”. Ergonomics is the logical order worried about the comprehension of collaborations among people and different components of a framework, and then calling that applies hypothesis, standards, information, and strategies to configuration to advance human prosperity and general framework execution. Its motivation is to expand the security, solace, and execution of an item or a climate, for example, an office. Ergonomics utilizes anthropometrical information to decide the ideal size, shape, and type of an item, and make it simpler for individuals to utilize.

2.7 Cognitive Analysis: On our application, we will attempt to a connection between innovation and the individuals, and human limits. It's tied in with applying discernment for the advantages of individuals. I apply that to making innovation, administrations, and frameworks better for the individuals who are included. Since what I do is, I take what we comprehend about the person, human insight. It is a basic aspect of a wide investigation that incorporates understanding clients' need and their environmental factors. This examination of how to accomplish their objectives. Even though the center, strategies, moderately enormous particles, graininess. Undertaking examinations is applicable at all data and phases of the plan and improvement measure. Feeling for our clients have as of now client interviews gathered information through perception. Understanding them better and construct compassion with them additionally occupied with some client research, which many outcome yields occupied with certain personas and situations.

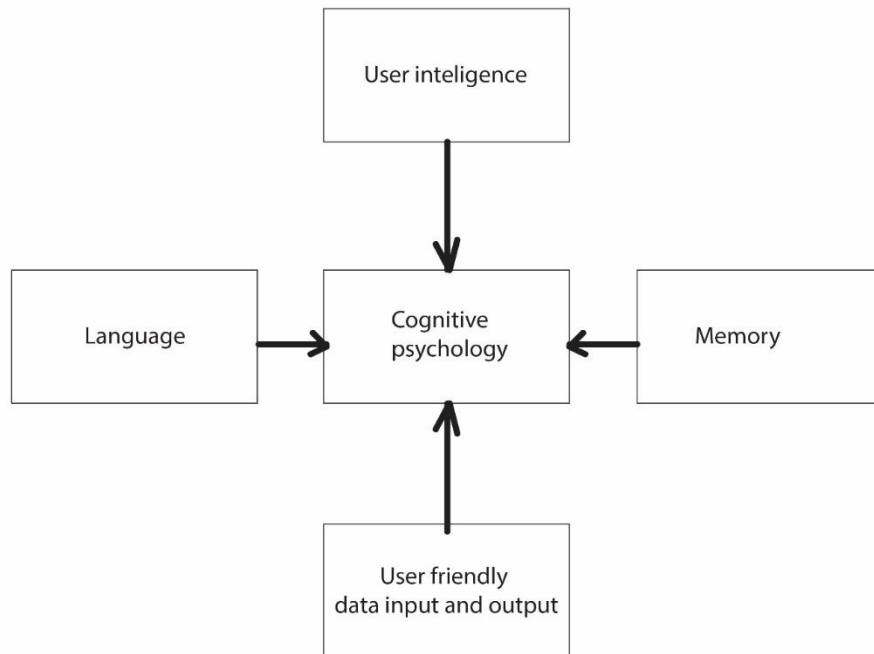


Figure 2.19: Cognitive Analysis

2.8 Features List Creation: As it is a social media application, and social media means socially connected with people around you and the world. So, when we thought about our application, we should also think about the features that should contain the features that social media must-have. There are some common features that people usually use in a social application. I make a list of them below.

1. Profile creation
2. Add details about you
3. Share contents
4. Connect with other people
5. Send a text to a person
6. Add photos and videos
7. See what others are sharing
8. Search for people
9. Join and create groups
10. Events creation
11. Live share

These are the common feature that a social app must have and in our design, we keep these things in the following. But what makes our concept unique. What features we have that influence the user to use this application and don't get bore. It is an application for the department of Multimedia & Creative Technology so I must have the features that are helpful to the people of Multimedia & Creative Technology. I make a list below that shows the exceptional features that our concept has for its users. These features are created with the research and based on the user analysis.

1. Identified profile
2. Teacher, student, alumni section
3. Easy to find MCT people
4. Course wise groups
5. Class & Work reminder

6. Job offers for MCT
7. Important seminar and workshop notification
8. Portfolio section
9. Group for clubs
10. Create a group for batch
11. Easy apply for a job with a portfolio

We tried to add all the features that a student wish to use in their academic purpose that help them in their future career.

Chapter 3

System Design (Define)

3.1 Use Case Diagram: A use case diagram at any rate troublesome is a depiction of a customer's coordinated effort with the system that shows the interaction between the customer and the various use cases in which the customer is incorporated. A use case diagram is the essential type of framework/programming necessities for a new software program that is under development. Use cases indicate the normal conduct (what), and not the specific technique for getting it going (how). Use Case diagram shows the access what access a person gets. It also identifies the limitation of user accessibility. The normal conduct of different types of people with the system decides here. It helps the developers to know how to code the solution and the testers to understand how to test it and what results they should be looking for when they're performing that test. Because it does that job so much easier, everyone can use it to have a clear understanding of how our solution should function what the result should easily create test scripts.

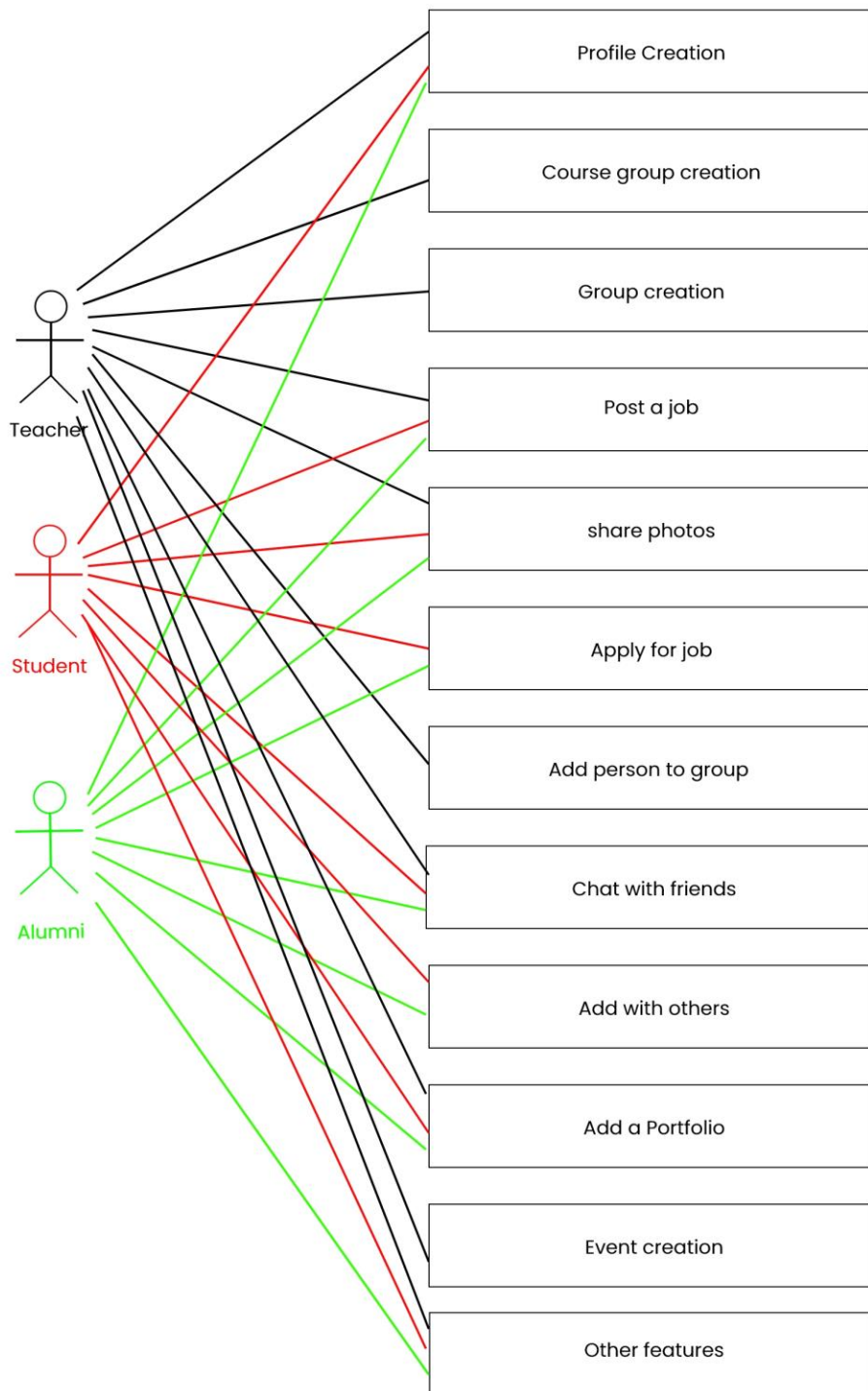


Figure 3.1: Use Case Diagram

3.2 Activity Diagram: The activity diagram is a full interaction of the system. It defines all the activities and options step by step. The control stream is attracted starting with one activity then onto the next. This stream can be consecutive, expanded, or simultaneous. Movement outlines manage all sort of stream control by utilizing various components, for example, fork, join, and so on. The fundamental motivations behind the activity diagram are like different charts. It catches the dynamic conduct of the framework. Other diagrams are utilized to show the message stream starting with one item then onto the next however action chart is utilized to show the message stream starting with one action then onto the next.

Activity is a specific movement of the framework. Activity diagrams are not just utilized for envisioning the dynamic idea of a framework, however, they are additionally used to build the executable framework by utilizing forward and figuring out methods. The main missing thing in the action chart is the message part. It doesn't show any message stream starting with one movement then onto the next. The activity diagram is now and then considered as the flowchart. Even though the graphs resemble a flowchart, they are not. It shows various streams, for example, equal, expanded, simultaneous, and single.

So we also make our activity diagram to make the prototyping easy and define how the system will work step by step. Here is our activity diagram below.

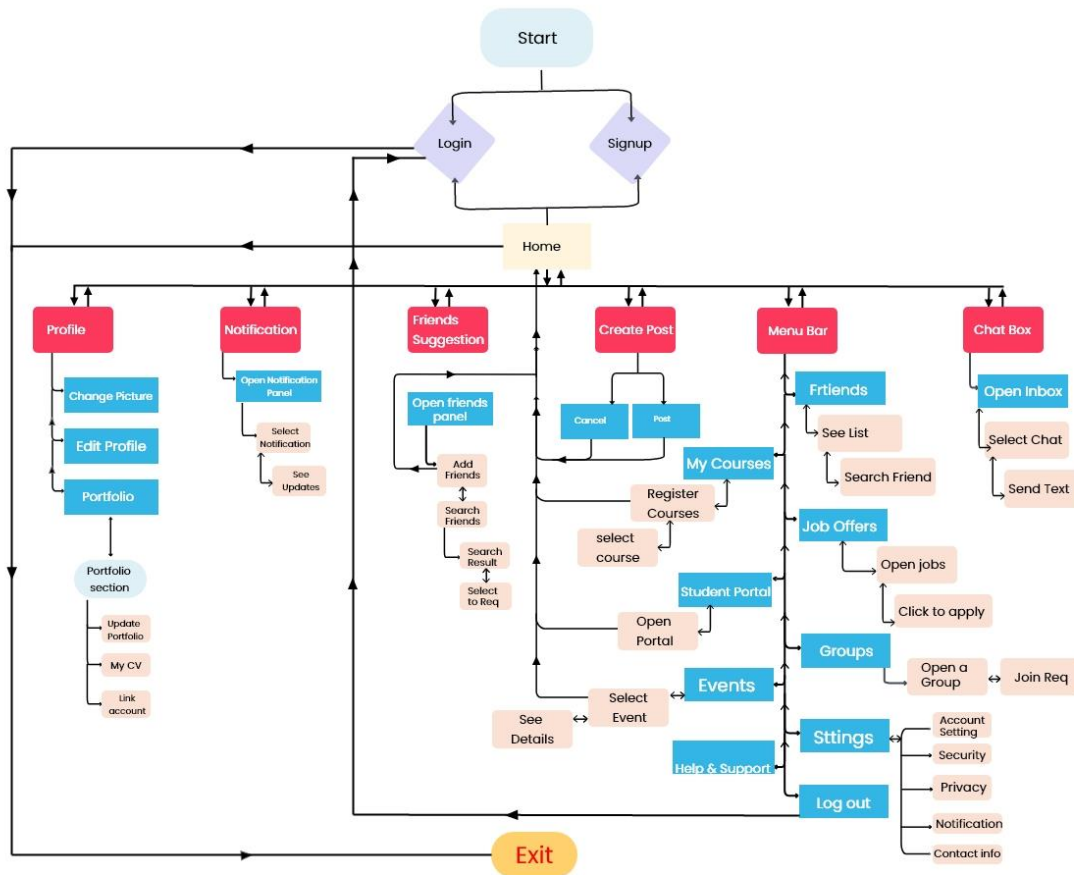


Figure 3.2: Activity Diagram

3.3 System Design: Design System is a style manage, design library, and part library-an assortment of rules, standards, requirements, and best practices. A style manage contains data about and instances of how things ought to be done reliably over an item. Style directs typically come as a record. Consider it similar arrangement of guidelines and a Lego pack for everybody. In the event that you are a planner or an engineer, at that point this manual for building your own plan framework is for you.

With every new hire, new ideas for color palettes, buttons, form elements, typography, and patterns appear in the product, growing the inconsistency and increasing the maintenance cost and saves a lot of time. So, the code that makes it into the library is tight and fast. Every pattern library has been usability tested.

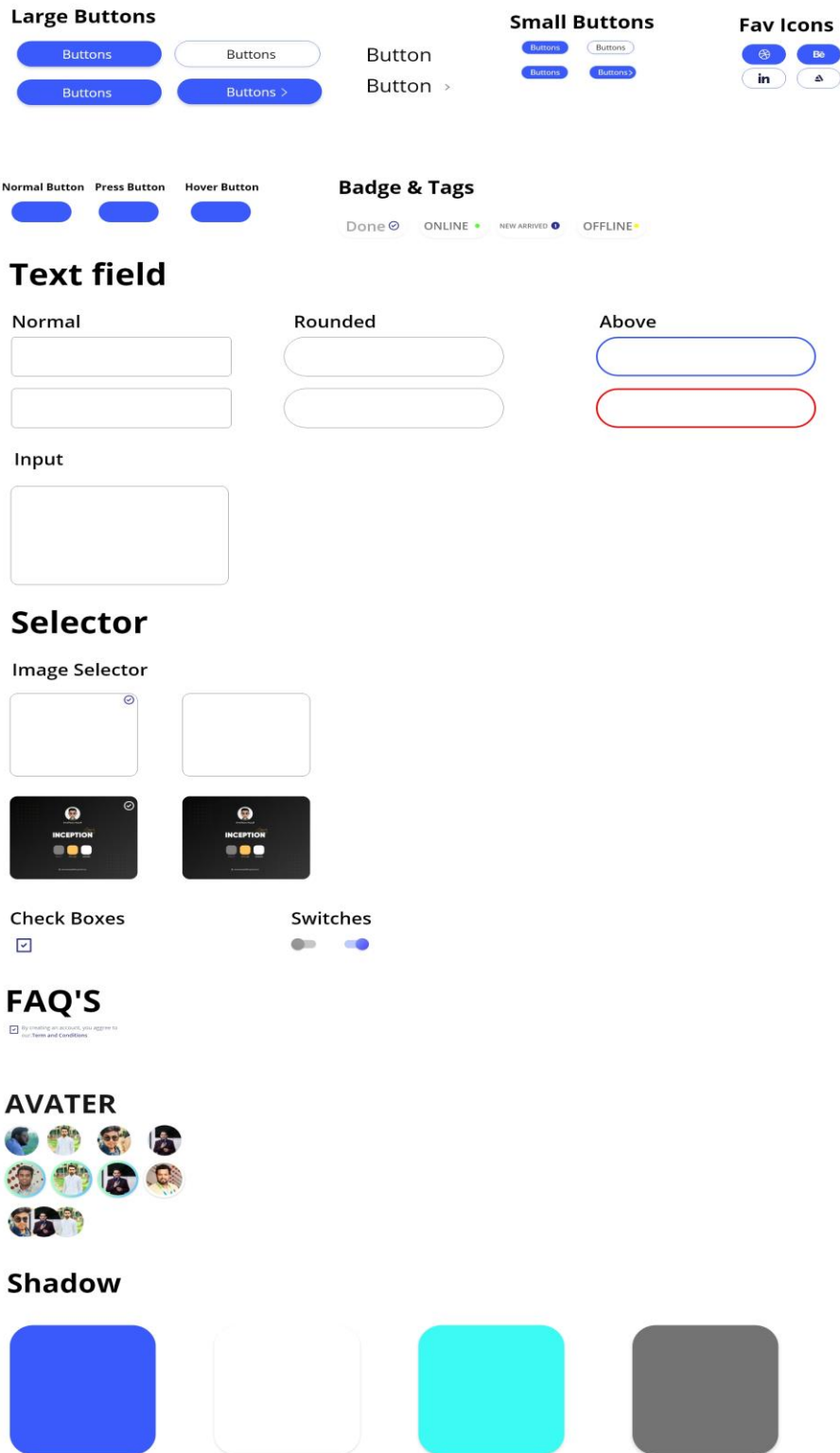


Figure 3.3: System Design

Chapter 4

Process (Ideation)

4.1 Scenario or Storyboarding: Storyboarding is a visual particular instrument. It's for each situation best to consider the ideal circumstance of a customer test. Storyboards help make the smart to fathom from the beginning and easy to review the setting to our gatherings and accomplices. There are three key sections of a storyboard a specific circumstance, visuals that are appeared in course of action and consolidate nuances appropriate to the story, and looking at engravings that sum up the customer exercises, condition, or feeling. The storyboard takes after a film about how people teamed up while using our thing. Its tremendous stories are a suitable genuine way to deal with getting every movement and explore the arrangement cycle's experiences

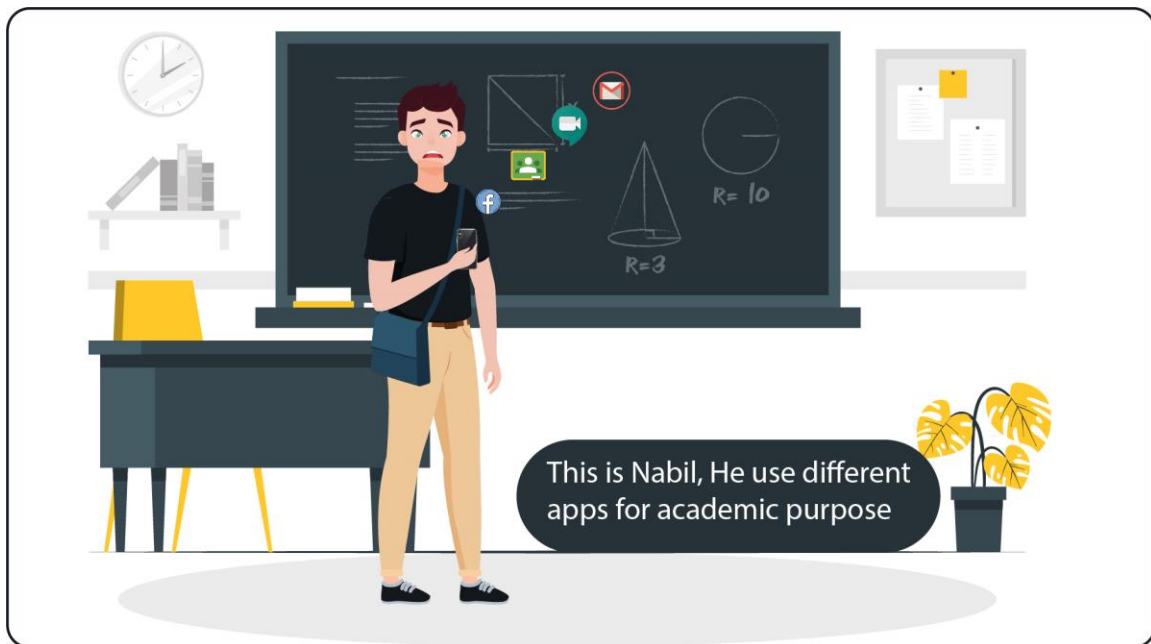
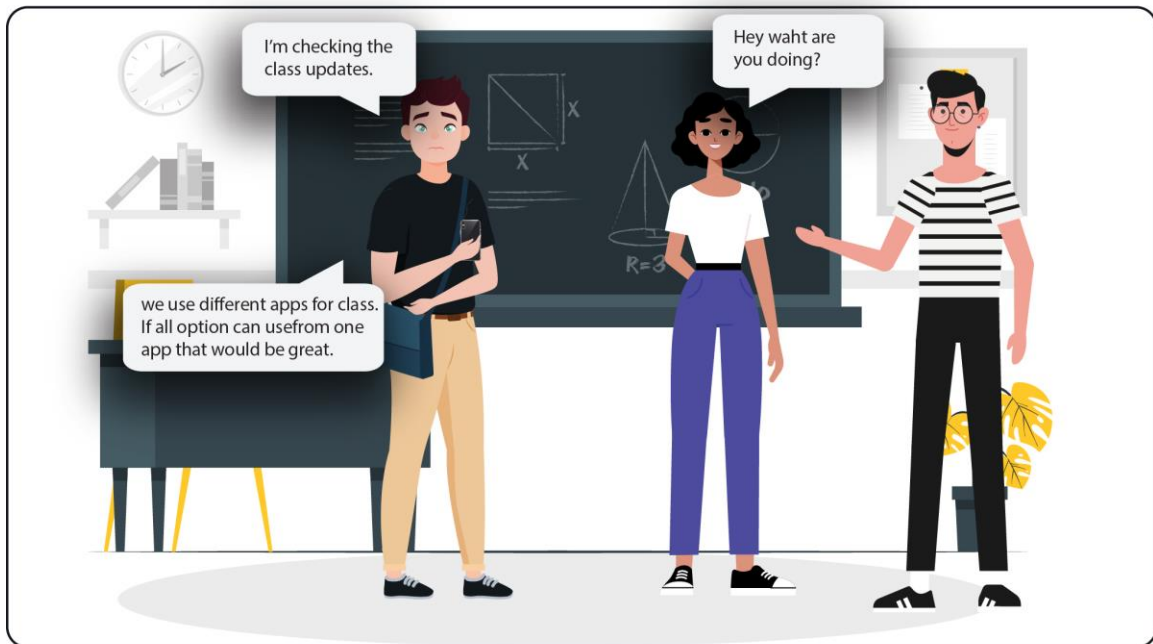


Figure 4.1: Story Scene 1



Telling his friends about his problem of using different apps for study



His friend suggest him to use mctgram app.

Figure 4.2: Story scene 2

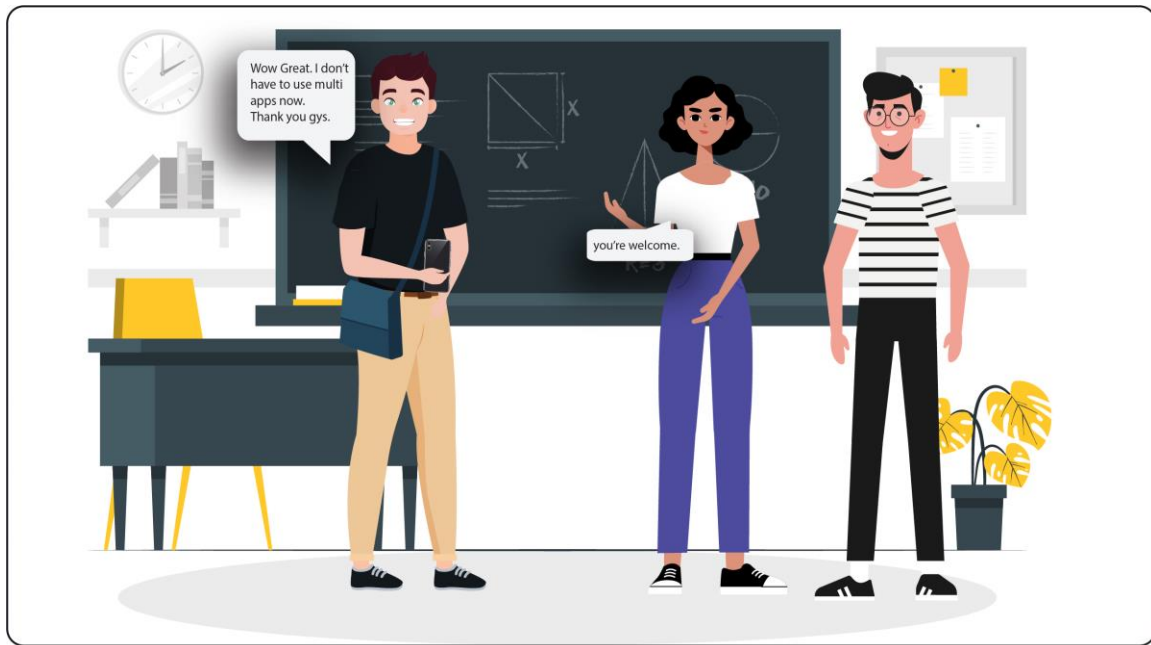


Discussing about the useful features.



Install the app and discuss about more feature.

Figure 4.3: Story scene 3



Thanks giving to the friends for app suggestion

Figure 4.4: Story Scene 4

4.2 Wireframe Design: A wireframe is a low-fidelity design layout that simplified representation of your site or app. Wireframes can be hand-drawn or electronic, and they consist of lines and text. It gives an outline of the structure and layout of the page. It passes on the general bearing and portrayal of the user interface. Visual design and color are not represented in the wireframe. The wireframe should always be white or grey. The structure of the content of the page, how many titles do you need should you have a button and how many images do you have and that's kind of a way to think and make sure that you have the general idea of the story that we want to tell in our page before you go to the high-fidelity design.

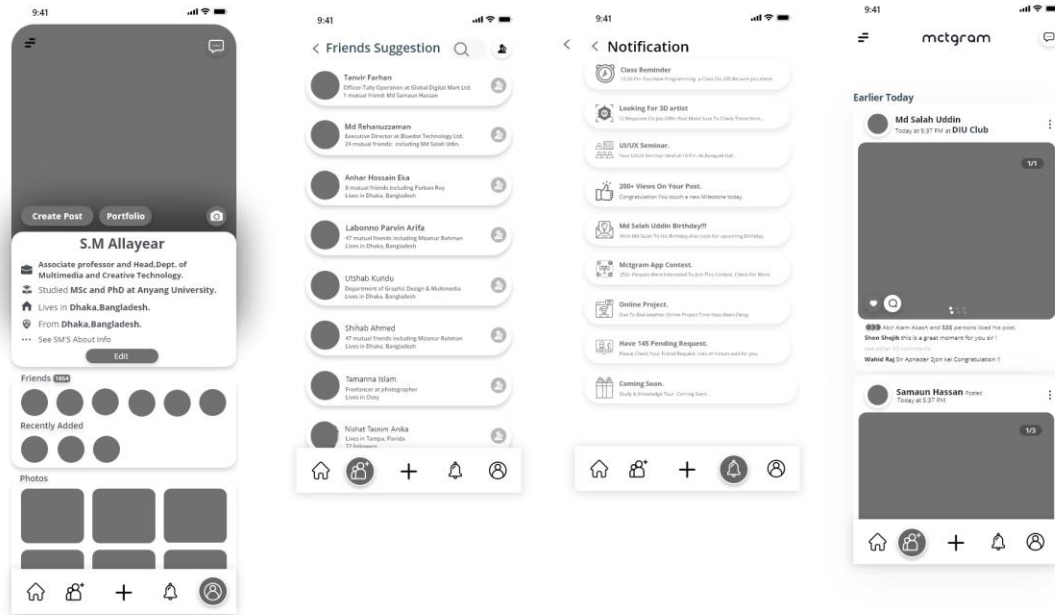


Figure 4.5: Wireframe Design

4.3 Color analysis: We know that color is the most important element of appearance this is the first thing that anyone pays attention to. As a designer, we spent a lot of time playing around with colors and combining them and choose the final colors for our design. When we chose the color, I'm thing what brand represents what emotions or feelings do to associate with my brand. Using color palettes will unite the spare elements and direct the viewer's eye, but wrong ones, it just might send them into a violent and uncontrollable rage. So we make them pleasing to the eye. Color is all about context, and more color doesn't always mean better color that's why I have used the 60-30-10 rule think of it as a recipe for how much of each color you should use on our app.

4.4 Font analysis: An examination shows that 70 % of User Interface relies upon typography as it is the best wellspring of speaking with anybody. Typography assumes a significant function in User Interface, and improving your typographic plan is a significant advance in improving both UI and UX. Planning a UI varies from planning a digital book or blog subject, even though the standards of the type-driven plan apply innovation has advanced a ton, so here are 8 guidelines for better typography in UI^[6].

1. Hierarchy: One of the most significant strategies for viably imparting content is the utilization of a typographic chain of importance.
2. Font Choices: Choose from well-known sources, Sans-Serif, or Serif are safe choices. Choose a typeface that works well in various sizes.
3. Text Sizing for different portions.
4. Text Alignment in a different section of the page layout
5. Line Spacing: Line dispersing is the vertical separation between lines of text. Focus on about 140%-180% for ideal clarity and openness. The text dimension ought to be at least 14pt. The greater the screen the greater the content. Little textual styles need all the more dividing.
6. Letter Spacing: Larger type sizes such as headlines, use tighter letter-spacing to improve readability and reduce space between letters. For smaller type sizes, looser letter spacing can improve readability.
7. Color Contrast: Consider making body text on-screen dim dark instead of dark. Screens have more extreme differentiation than paper, and hence are additionally tiring to peruse at the full difference
8. White Space in between the portion

4.5 Logo Analysis: Logo is an identification of a brand or commercial works. Every mobile app in the market has its unique logo by that people can identify which apps it is. Here we are working on the UI/UX design of a mobile application so we need a brand name and logo for its identification. After much thinking and ideation, I choose a design for our logo. I tried to make it simple and understandable. I use two colors in that so it looks simple and eye-soothing. I want to make it classic as different aged people will interact with this app. 80% of all the data our minds cycle consistently comes directly from our eyes. According to checking organization webpageFx, almost 85% of customers state the principal reason they picked one item over the other is shading. Also, another 80% said that tones are what give marks that important stamp of acknowledgment. So I did three versions of our logo black, white, and colorful. I use the hex color code that informs the computer how much of each color is used. We used Adobe Illustrator and Photoshop for our logo design.

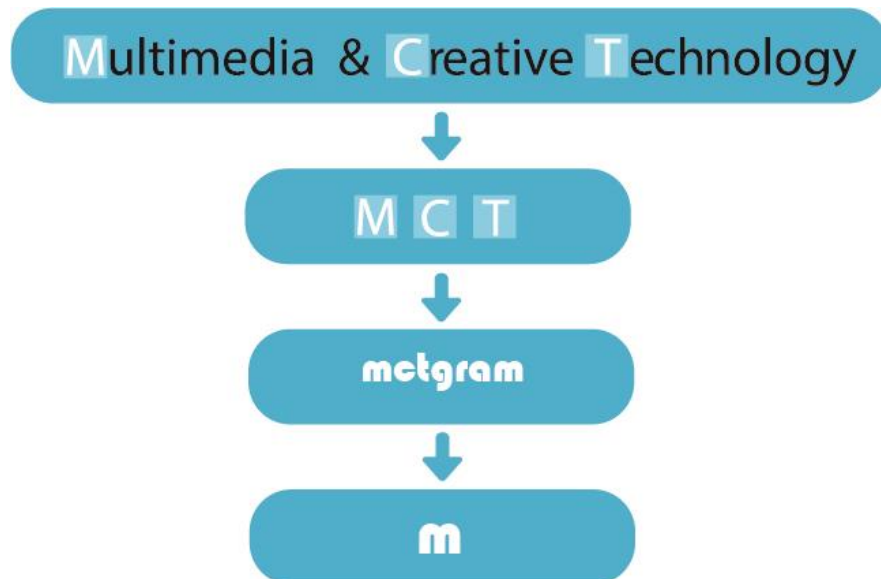


Figure 4.6: Logo Analysis



Figure 4.7: Logo Black and White



Figure 4.8 Logo Color



Figure 4.9: App Icon

4.6 Icon Analysis: Using icon is another way to represent the idea. Because some time text labels and color not understandable but in an icon is an easy means of finding aspects. When using an icon, users encounter an icon; they can't be sure that any single meaning is going to be the right meaning for that context. We should also design icons to be schematic and not realistic. We want to avoid adding too many visual details because this adds to our visual processing and slows the user down when they're trying to determine what that is. We need just enough visual detail to ensure that our user captured the essence of that task, and it's recognizable to people. By minimizing the amount of visual

detail in our icon design, it not only reduces that visual processing, but it also helps the user icon scale more easily. We used some download icons that are copyright free because sometimes creating an icon is difficult to think of a unique icon^[9]. Here is our icon set attached.

Large icon size= 30x30 pixel



Small Icon Size=24x24 pixel



Figure 4.10: Icon Palette

4.7 Prototype design: Prototype is a concept or step in the design process. Prototype a sample version of the product the proposed used to validate the ideas. There are two types of prototype designs. One is low fidelity prototyping and another is high fidelity prototyping. All wireframe is a low prototype. And high-fidelity prototyping is a more interactive design. This high-fidelity prototyping very close to the final product. How the finished product will work its experience how the application flows how its interaction works and test the usability and feasibility of our design. We have already done our high-fidelity prototyping with Adobe XD.

Here we attach our low-fidelity prototyping images that show how the interaction will work for our design.

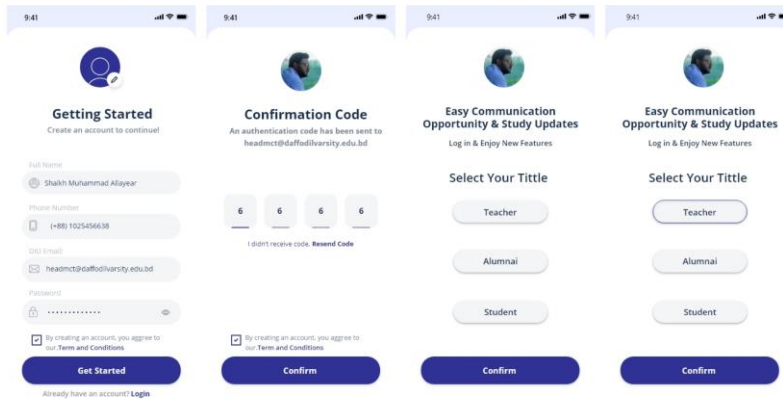


Figure 4.11: User Login Process

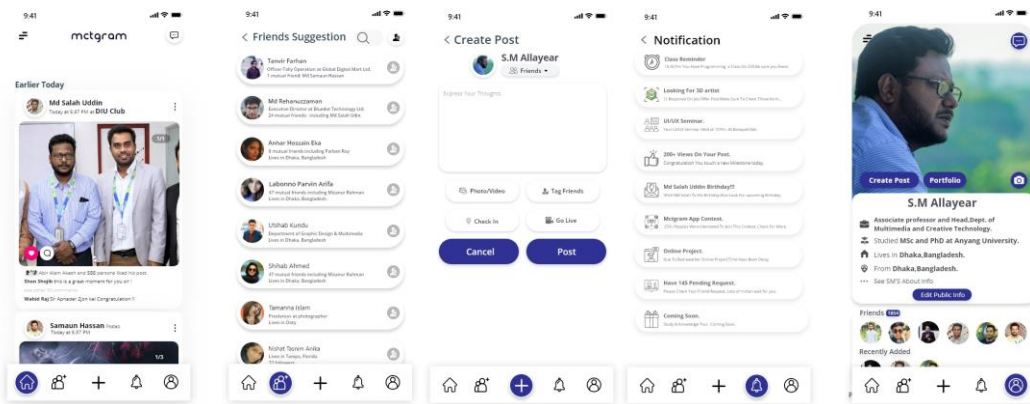


Figure 4.12: Home page sequence

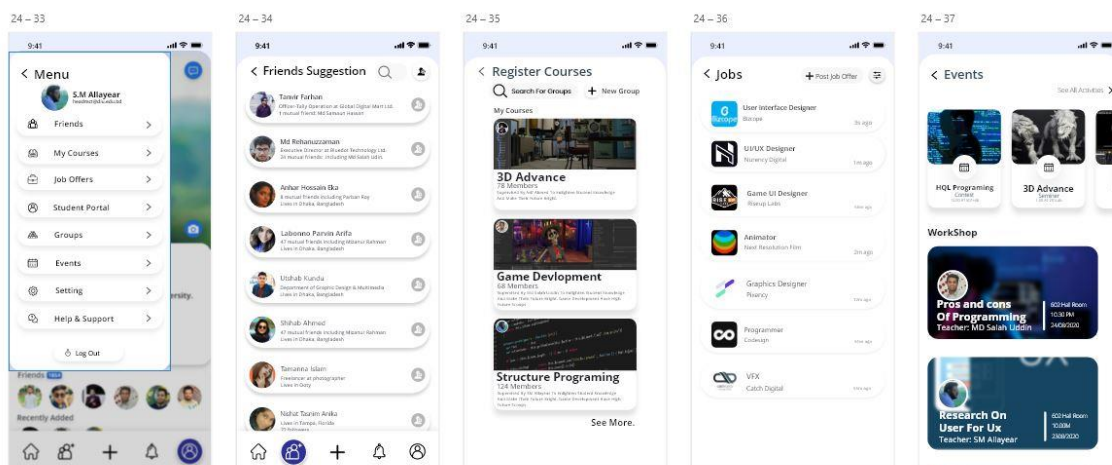


Figure 4.13: Menu sequence

Chapter 5

Design Evaluation

It is the final step of design implementation. Before we come to this part we made a workflow that we followed to the design evolution. First, we make a flow of steps that should follow the whole process.



Figure 5.1: Working Process

From the beginning, we do brainstorming to decide our final topic. After selecting the topic we make a comparison of competitive apps. Then we find out which features we are

missing. Then we go for user research, we surveyed the targeted user and decide what we need to do in design.

After that, we make a list of the main point and options that will include in our design. We make the list from the research and user persona and also make a list of the features that a social media application must have in it.

Then we go for a layout sketch, here we arrange our options page by page. This is the most important part of the design. Here we have to arrange all things and layouts with all the options inside that help the user to interact easily with the UI. It took us a long time to finalize the sketch of the layout because of the arrangement. We tried to make it different than other apps in the market.

After finalizing the thinking we do the sketch layout for correction and page arrangements. That will help us with the design implementation.

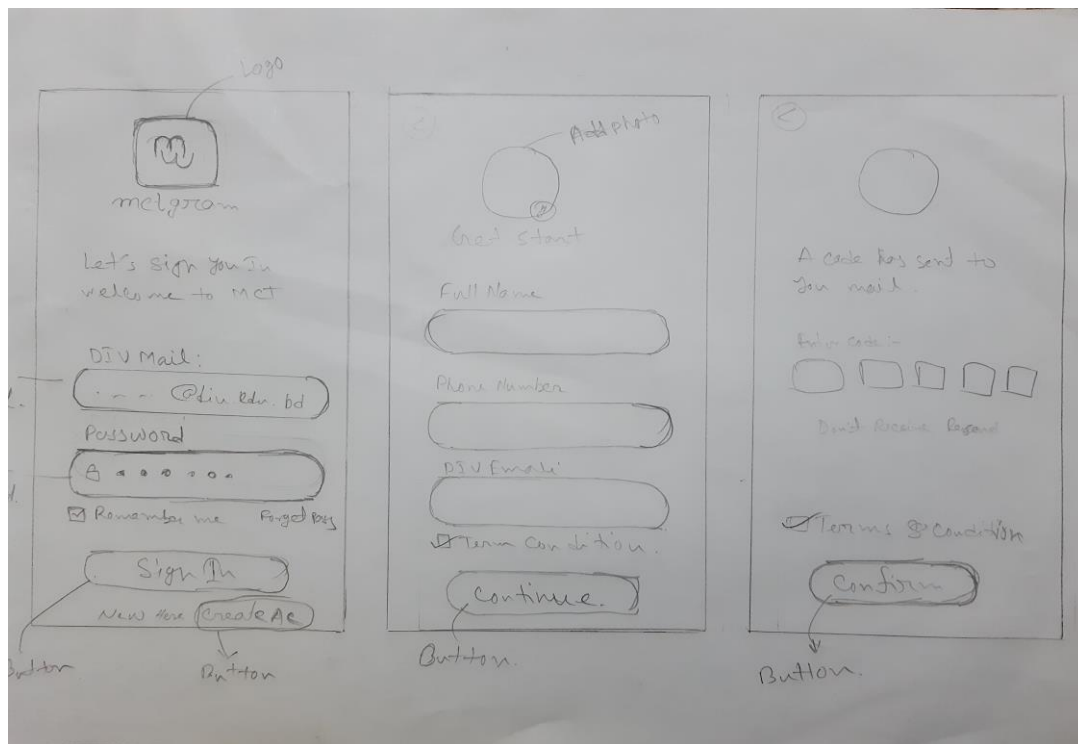


Figure 5.2: Sketch of Login

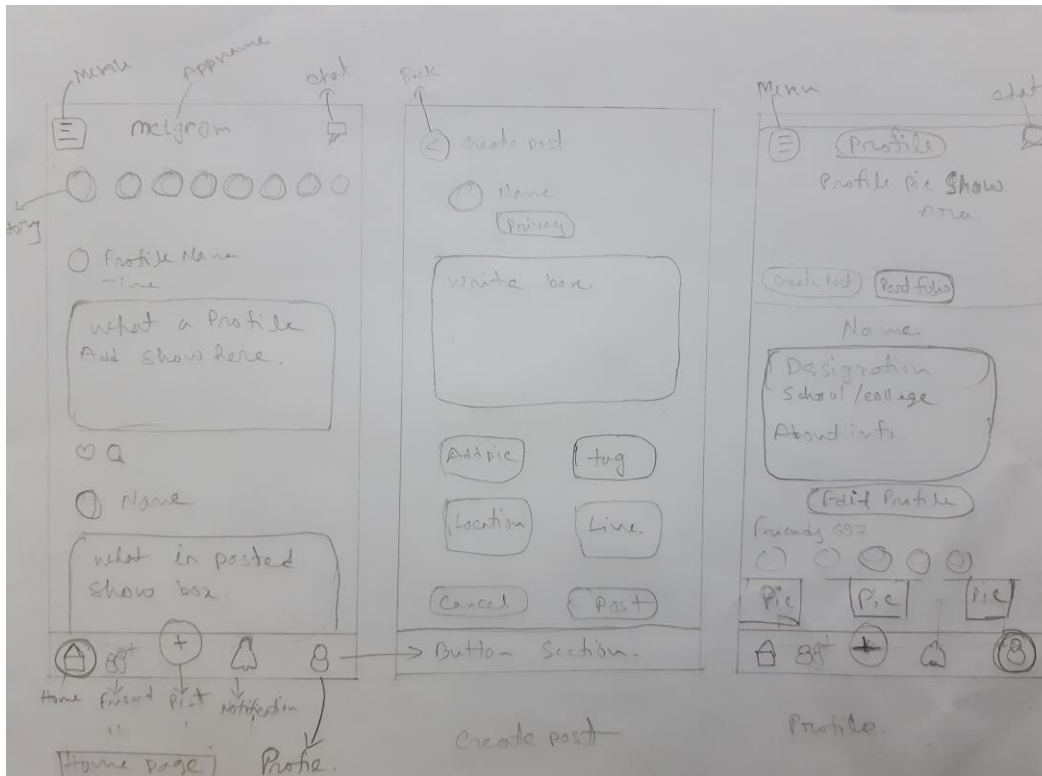


Figure 5.3: Sketch of Homepage

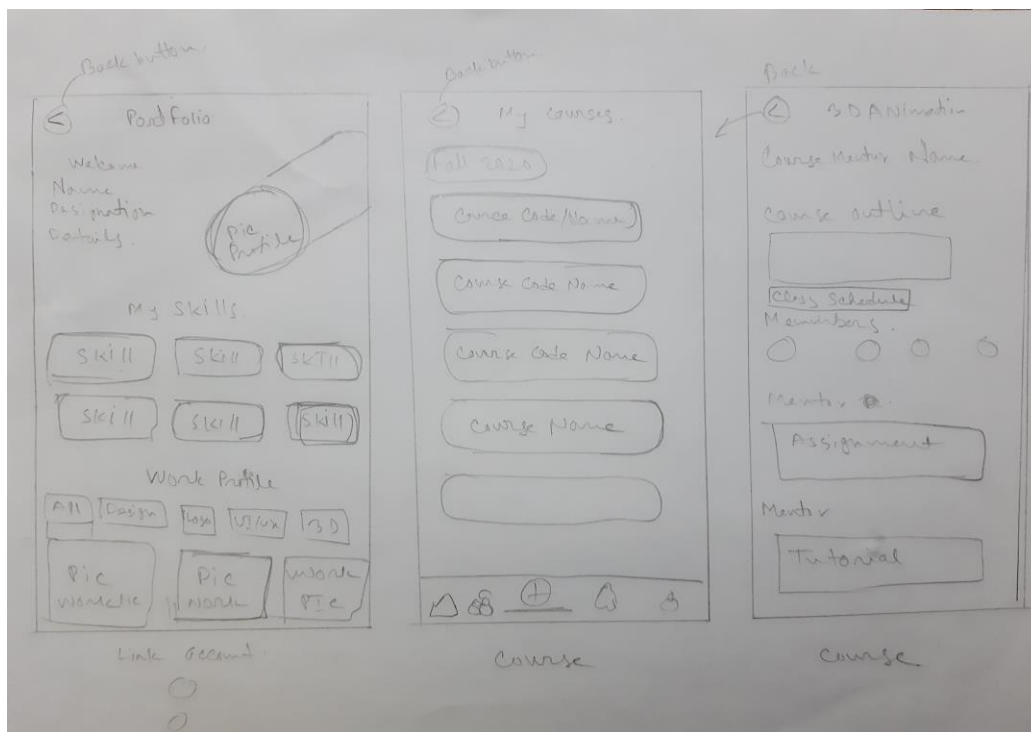


Figure 5.4: Sketch of Portfolio & Menu

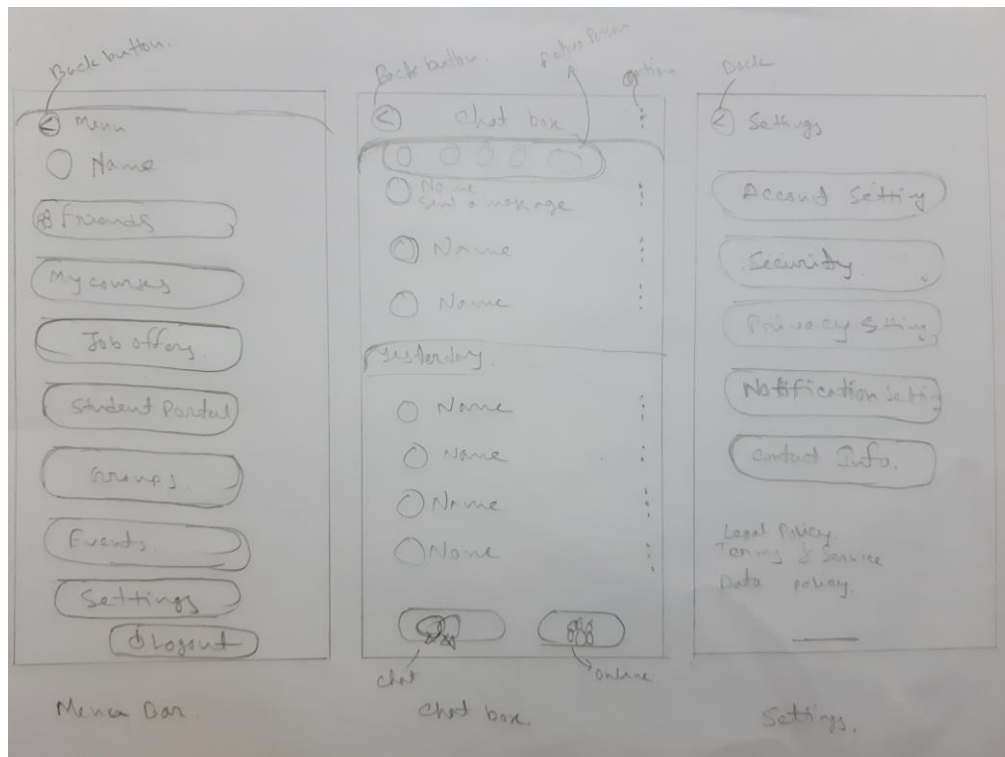


Figure 5.5: Sketch Menu & Chat

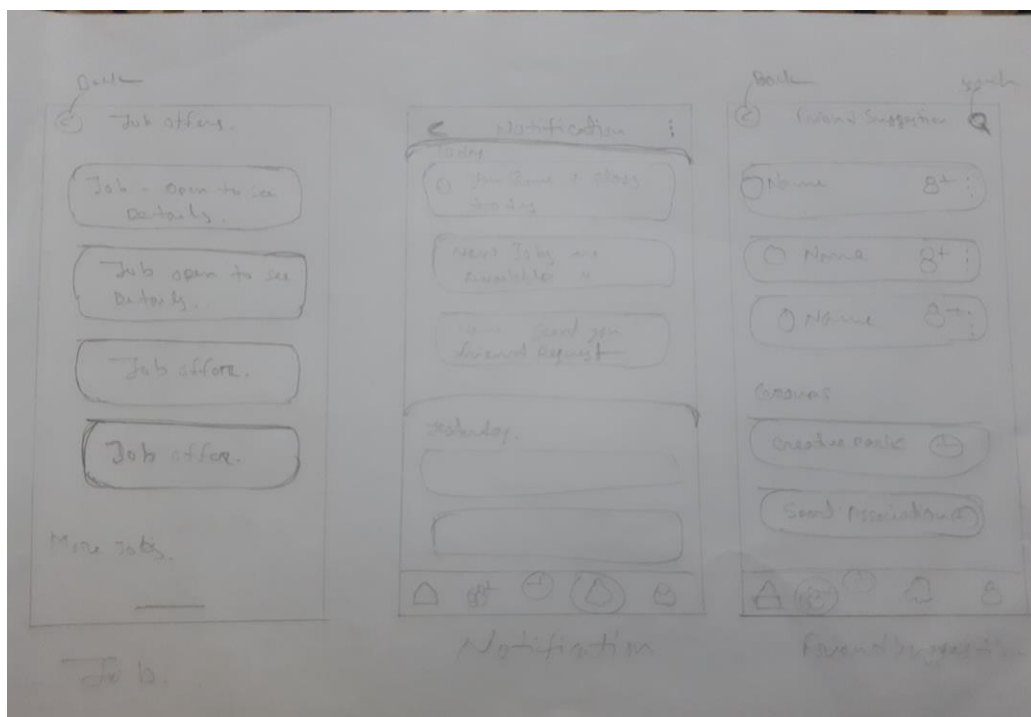


Figure 5.6: Sketch of Job & Notification

After completing the sketch we move to the design with the software.

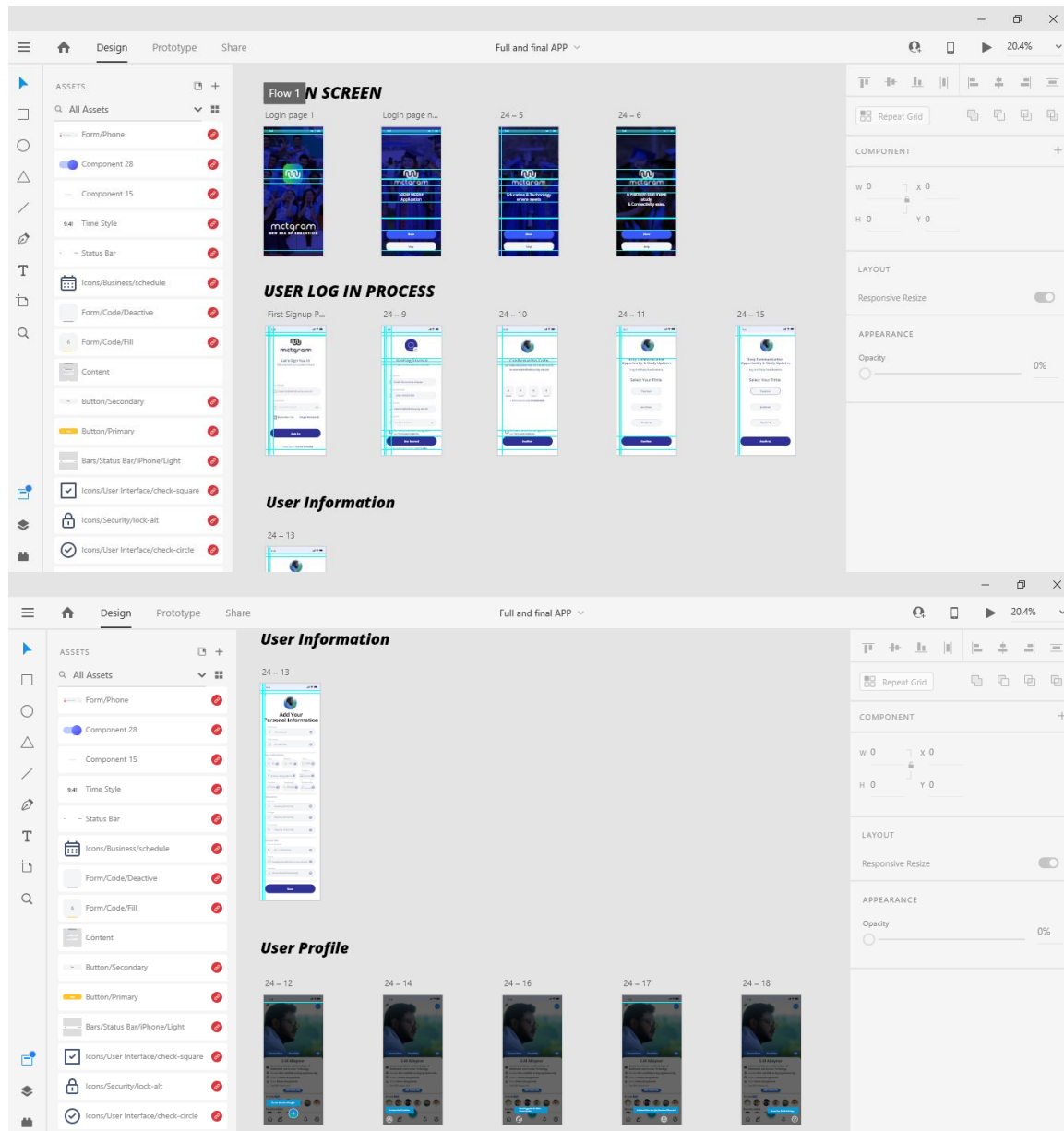


Figure 5.7: Design Implementation in software

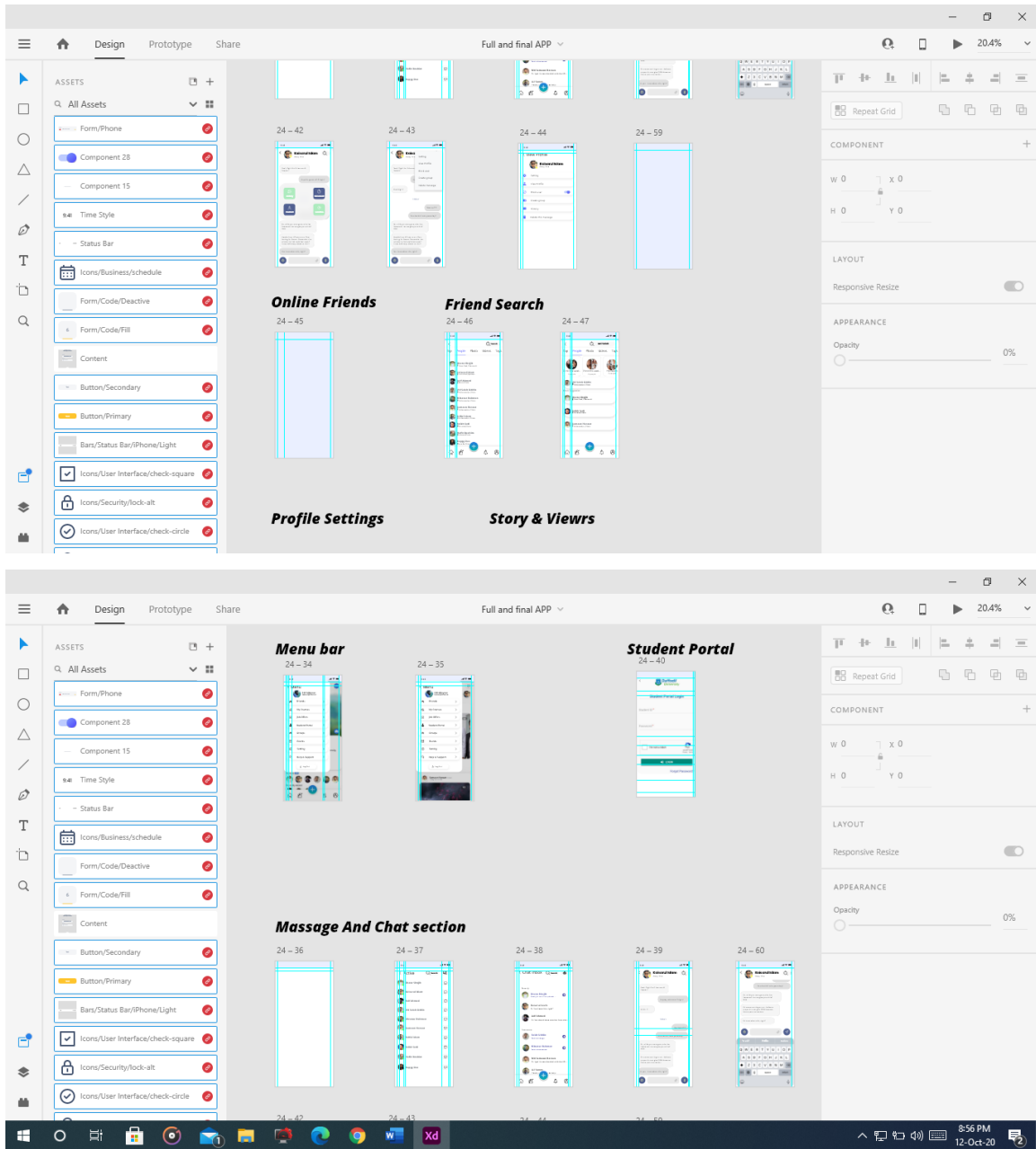


Figure 5.8: Design Alignment with software

We make the prototype with Adobe XD. This will show how the interface will interact.

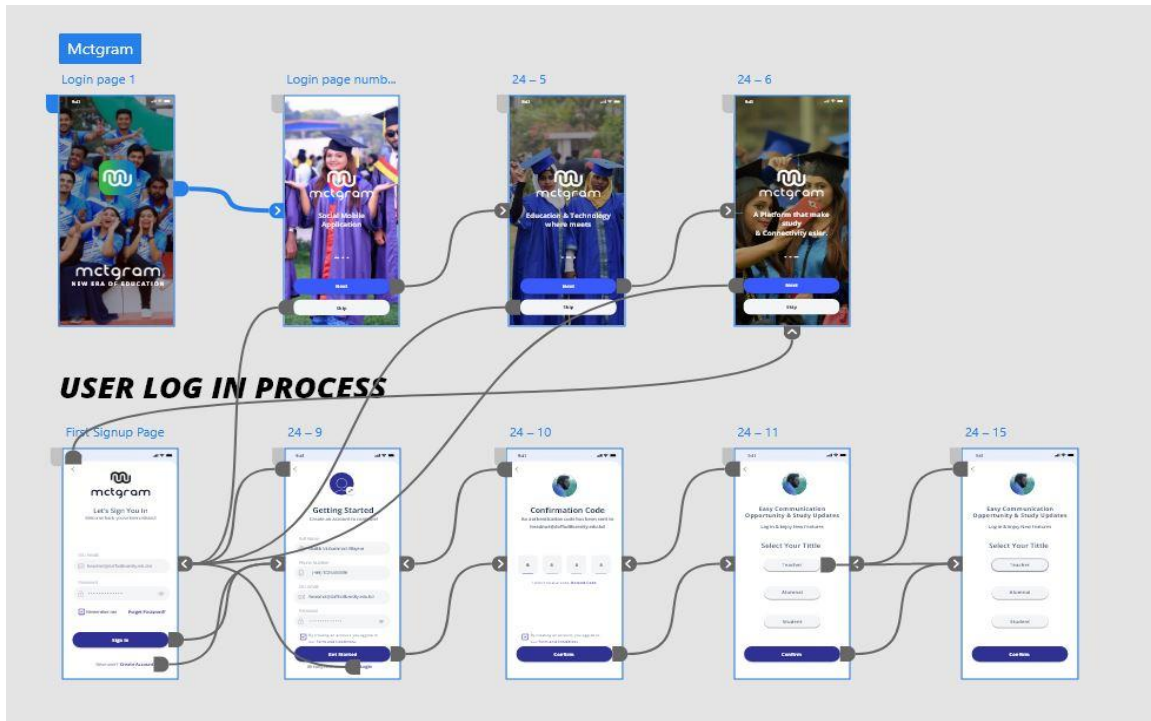


Figure 5.9: Prototype Making

We worked with different software for a different purpose. We made our icons in Adobe illustrator, designed our logo with Photoshop and we used Adobe XD for our interface designing.



Figure 5.10: Used Apps

We tried to make our design simple and unique. We also tried to make the alignment of the buttons perfectly so that prototype will be perfect. We focus on the button alignment, portion alignment filed text alignment for each page perfectly. For that we choose pre-applied button sizes and different text fields, we took reference from a phone layout for the perfect alignment

We made a timeline for our project and tried to follow the timeline to make the work progress on track.

Table 5.1: Work Timeline Gantt chart

Numbers	Tasks	Duration (Weeks)	Week																			
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	Brainstorming	2																				
2	Concept art & Research	4																				
3	Sketch	4																				
4	Production	8																				
5	Post Production	3																				
6	Finalization	2																				
7	Implementation	1																				

Chapter 6

User Feedback

After making the prototype we get to the user to get feedback from them. So, we take this prototype to the user and let him use the functions. After they use it they like the idea but some of them starting compare them to Facebook. They suggest us to do something that should not look like Facebook and useful for the department and people not get bored using it.

First, we designed it that anyone creates groups, but after the user feedback, we remove the option and give it limitations that any person who uses it can't create groups, only the authorities create groups as needed for clubs & courses.

First, we added job options for the user, but some users want it easier with the portfolio and easily apply at the same time. So, later we added a section called a portfolio. You can add your skills and experience along with a CV so any person who views your profile can get to know which skill you have. Some job requirements need professional links of their works like Behance^[14], Dribble^[11], Artstation^[13], etc. So, we keep an option for that to add links to their professional profile.

We think of adding a story section as many other apps have it, but after user feedback, we remove that. Because we generally add stories to the social media application, in this case, it won't help here as it is a special app for different circumstances than other applications.

Some user suggests us to make the functions easy interactive. So, we make some changes in the interaction processes so that the user doesn't get time consumed using it and feel better.

After all the feedback and corrections we tried to make the UI as user-friendly and useable and easy interactive design.

Chapter 7

Problems & Outcomes

After many ups and downs, we finally able to finish our project. In our working process, we face many difficulties but with time and thinking, we make them overcome. Most difficulties we face that we can't do teamwork properly because of the Corona pandemic and lockdown. We tried our best to make the project within our timeline. But due to the situation, we have to exceed our timeline.

From the starting of the project, we face many difficulties throughout the whole working process. First, after brainstorming and finalize our topic, we have to choose a name for the project and we are glad that our advisor helps me with that. Then we need to research user feedback and experience. We face trouble in making the survey sheet that what question we should ask a person because of the corona pandemic. But after many thinking, we made a survey sheet and send the links to the persons and ask them to fill it. And we get overall feedback that helps us to go for production.

After that, we started thinking about the logo. We tried to make it simplified that a user likes to see. We work on that for one week and finally, we made that.

Then we face trouble in choosing colors and font. After many thinking, we come to a decision that we should follow the color that daffodil uses because it is an app that is designed for our department and our department is a part of Daffodil International University.

Later on, we go to the feature list and layout sketch. We tried to attach the features that user likes and also merge the features that a social media have. But find trouble in arranging the option. After much work, research, and efforts we make a final layout and go for design implementation.

We tried hard to make the work perfect and simplified, we follow a workflow that leads us to the outcome.

Conclusion

We learn a lot of things and every aspect of design works in our four years bachelor program in Multimedia & Creative Technology. We tried to implement our design skills through the final project of our degree. So, we started thinking about what we should do for our final project. We discussed a lot of things and options but later all that didn't work out.

Finally, I thought of a problem that everyone might face here in our department, and later I talked about it with my partner then a lot of things came up. We think of doing something actually beneficial to our department. Later we discussed it with our Head of the Department he gave us the privilege to work on that.

Then we started our work process step by step. But due to the corona pandemic, everything comes to standstill. And lockdown hampered our group work very much. But we make it overcome with the blessings of the internet. We kept doing our work online. We do most of our research work online. We talked to the person about our work, what they feel, what they want it like and we get positive feedback.

After that, we started our thinking about the options that make our idea unique. We make as tremendous research with a competitive platform, then we decided on our goal of design the product. And after months of works here we are with our project. It's a front-end design of the application that is beneficial in many aspects for the department of MCT.

We tried to make the design simple and unique so that a user doesn't get bored while using and enjoy the features and also feel using it for betterment.

References

1. Facebook - Log In or Sign Up. Retrieve from <https://www.facebook.com/>
2. Instagram. Retrieve from <https://www.instagram.com/?hl=en>
3. LinkedIn Bangladesh: Log In or Sign Up. Retrieve from <https://bd.linkedin.com/>
4. Coolors - The super fast color schemes generator. Retrieve from <https://coolors.co/152614-1e441e-2a7221-119822-31cb00>
5. Adobe Color: Color wheel, a color palette generator. Retrieve from <https://color.adobe.com/>
6. Tutorialspoint . Retrieve from <https://www.tutorialspoint.com/>
7. Creately: Chart, Diagram & Visual Canvas Software. Retrieve from <https://creately.com/>
8. UX Planet. Retrieve from <https://uxplanet.org/20-best-color-palettes-tool-34f71d11a9f9>
9. Flaticon. Retrieve from <https://www.flaticon.com/>
10. Statista - The Statistics Portal for Market Data, Market. Retrieve from <https://www.statista.com/>
11. Dribbble - Discover the World's Top Designers & Creative. Retrieve from <https://dribbble.com/>
12. In-demand talent on demand.™ Upwork is how.™. Retrieve from <https://www.upwork.com/>
13. ArtStation – Explore. Retrieve from <https://www.artstation.com/>
14. Behance :: Best of Behance. Retrieve from <https://www.behance.net/>
15. Wikipedia. . Retrieve from <https://www.wikipedia.org/>