MAINTAINING AND DEVELOPING PRODUCTION LEVEL CODE AS SOFTWARE ENGINEER INTERN

BY

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This Report Presented in Partial Fulfillment of the Requirements for the Degree of Bachelor of Science in Computer Science and Engineering.

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DAFFODIL INTERNATIONAL UNIVERSITY
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APPROVAL

This Project/internship titled **Maintaining and Developing production level code as Software Engineer Intern** submitted by Sabbir Ahmed ID No: 191-15-12867 to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfilment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on *date*.

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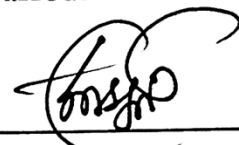Daffodil International University

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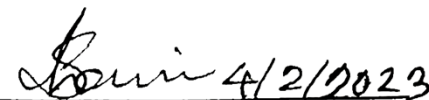
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Department of Computer Science and Engineering
East West University

DECLARATION

I hereby declare that I, **Sabbir Ahmed**, ID No: **191-15-12867**, prepared this internship report for the Department of Computer Science and Engineering, Daffodil International University, under the supervision of **Md. Sadekur Rahman**, Assistant Professor, Department of CSE, Daffodil International University.

I declare that this internship report is original and has not been submitted to any other institution for the purpose of obtaining a Degree or Diploma.

Supervised by:

Sadek
2 . 1 . 2023

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ACKNOWLEDGEMENT

ABSTRACT

This internship report is for completion of my BSc at Daffodil International University. For this I had an internship on "**Maintaining and developing production level code as Software Engineer intern**" at CloudlyInfotech Ltd. There I had many responsibilities like building production level code, parsing data from the web, connecting non-sequential databases, deploying code on AWS Lambda etc. Also I was responsible for modifying software, identifying and correcting errors, directing software programming, and preparing reports on programming blueprints.

In this internship report, I basically tried to demonstrate how I handled certain situations as well as how effective I was throughout the internship. Furthermore, I attempted to demonstrate whether or not my internship was beneficial. Another critical issue was dealing with real-world problems. My report covers every aspect of the experience and knowledge I gained during this internship.

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HAPTER 1

INTRODUCTION

1.1 Introduction

The internship experience is intended to give students pursuing certifications and correlate in engineering degrees in Software field with an opportunity to gain an understanding of the actual implementation of academic information. Students will be better prepared to assess their own interest and potential for a career while observing the work activities of employees of a IT company and operating under professional guidance.

1.2 Motivation

I researched and found out that Cloudly Infotech Ltd has not only a strong reputation but also a renowned IT Company in Bangladesh. So, I decided to join here and I was quite confident that my academic performance along with the corporate experience from Cloudly Infotech Ltd will assist me being a valuable and skilled employee to any IT company. For this reason, I made the decision to complete an internship with this company.

As I prefer self-learning, I expect that I will be subjected to various new obstacles that will provide me with new learning from Cloudly Infotech Ltd. This internship will provide me with an excellent opportunity to grow my career in IT field. As an intern, I contribute with operations at Cloudly Infotech Ltd while also trying to learn as much as possible. My internship with Cloudly Infotech Ltd will help me gain insight into my future and will be beneficial to my future professional and academic goals.

1.3 Internship Objectives

Internships are known as opportunities to gain practical experience from various organizations, which will greatly assist in bridging the gap between theoretical and practical knowledge. It provides valuable experience for the student's future career. As a Daffodil International University Computer Science & Engineering (CSE) student, I have studied a variety of server environments, organizational structure, and process courses over the last three years. However, because computer environments, management structures, and operations are such a broad area of modern technology, this is sufficient. making it difficult

to have a thorough understanding of these. I was excited to begin my internship at Cloudly Infotech Ltd.

This Internship Report is about "**Maintaining and building production level code as Software Engineer intern"** at Cloudly Infotech Ltd. This report includes my entire internship experience.

1.4 Introduction to the Company

Cloudly Infotech Ltd Was established in 2011 in Dhaka, Bangladesh. Cloudly Infotech Ltd provides IT Services Specializing in web design and networking sector includes the total IT and cloud based Solution and one of the Bangladesh leading IT services within these business areas.

Head Office

Cloudly Infotech Ltd Limited

House #429 (2nd Floor), Road#30,

Mohakhali DOHS, Dhaka-1206.

Phone: +880 16 3947 8824

Web: www.cloudly.com.bd

1.5 Report Layout

My report's layout is divided into 6 chapters. Chapter 1: Internship Introduction, Motivation, Internship Objectives, Introduction to the Company. Chapter 2: Organization Introduction, product and Market Situation, Target Group, SWOT Analysis, Organizational Structure. Chapter 3: Daily Task and Activities, Events and Activities, Project Task and Activities, Challenges. Chapter 4: Competencies Earned, Smart Plan, Reflections, Chapter 5: Discussion and Conclusion, Scope for Further Career of the internship.

CHAPTER 2

ORGANIZATION

2.1 Introduction

Cloudly Infotech Ltd started in 2011 around the early days of cloud adoption it is a cloud native software development company, leading the most complex technology projects in the world. They leverage the innovative capabilities of the cloud to help customers build new revenue streams, increase efficiency, and deliver incredible experiences. As a Consulting Partner, their unmatched expertise with AWS cloudly have been there to provide quality solution to the real world problem.The organization focus on results (not PowerPoints) as we help our customers uncover new possibilities to put them on the leading edge of innovation to the industry.

Eight years into the cloud journey, Cloudly delivers technology services focused on cloud adoption and transformation, data engineering and science, serverless application development, application modernization, and DevOps services with one core theme: "Cloud-native Software".

2.2 Product and Market Situation

Cloudly develop several products and services. It provides services like DevOps, Cloud Integration, Cloud Modernization and Cybersecurity. Devops helps organizations align development and operations teams to improve the quality of code, undertake continuous integration, and deliver faster. Cloudly, a leading DevOps consulting company, can enable continuous delivery pipeline across the cloud platforms for faster time-to-market at reduced costs. Cloud Integration Services Integrate public cloud and on-prem storage, easily, without additional software layers. Whether your objective is DR in the cloud, archival storage in the cloud, or content distribution, Cloudly makes it simple. With the industry's most compatible S3 API and multi-cloud support for AWS, Google GCP, and Microsoft Azure, you can manage and search a single view of information that spans your cloud and on-prem environments. Cloud transformation with end-to-end Cloud modernization services with Cloudly`s expertise in Digital engineering. The company provide a cloud modernization-map to minimize disruption and potential problems across all channels to maximize efficiency of the cloud modernization process.

2.3 Target Group & Audience

Developers and designers frequently use trendy new approaches to try to impress their clients. Clients, meanwhile, may seek a magnificent site that showcases business but companies should think carefully about what's best for the user experience rather than dazzling them with design.

When people focus on the superficial aspects of design—the colors and fonts, for example—they tend to lose sight of what is most important.

Because while the client may end up with a stunning, cutting-edge site, it's of precious little use if it doesn't appeal to those who are actually going to use it, and therefore fails to deliver any tangible benefits to the business. Our job, as developers, is to make sure that our clients remain focused on their users and that we produce a site with an optimal user experience. The quality of any cloud native solution depends largely upon how effectively it satisfies the needs of its target audience.

2.4 SWOT Analysis

SWOT analysis basically discusses the strength, weakness, opportunities and threats of any project or work. Following table depicts the SWOT analysis of my internship.

Strengths	Weaknesses	Opportunities	Threats
Convenient Locations	High rental costs	Continued market development	Supermarkets moving to 24 hours
Overall brand equity	High staff costs	Increased product offering	Supermarkets moving to online deliveries
Individually branded products	Technical Ability	Exclusive product offerings	Security
Capability	Franchisees	Co-branding locations	Shoplifting

Table 2.1: SWOT analysis

2.5 Organizational Structure

The conventional hierarchical arrangement of an organization's lines of power, communications, rights, and tasks is referred to as its structure. The way an organization is structured, who fulfills what tasks and responsibilities, and how ideas are distributed within the organization all affect how well a firm operates.

A company's structure depends on its objectives and strategy, but in a centralized structure the top layer of management has most of the decision-making power and tightly controls departments or divisions. Decision-making power is distributed throughout departments or divisions in a decentralized organization, and each may have varying degrees of independence.

Md. Manjur-E-Khuda is the Managing Director of Cloudly Infotech Ltd Ltd. He is the one who leads the company. He is the main consultant and to assist him there are administrative manager, marketing manager, project manager, operations manager and software development manager with other employees.

CHAPTER 3

TASKS PROJECTS AND ACTIVITIES

3.1 Daily Task and Activities

I joined Cloudly Infotech Ltd as a software engineer intern. My daily to-do list included the following tasks:

- Working with AWS Lambda.
- Working with PostgreSQL Database with Golang.
- Extracting data from the web.
- Unit and Mock Testing codes in different test cases.

3.2 Events and Activities

- Developing code base using Golang
- Testing code base by unit and mock testing
- Maintaining dynamic server side connection
- Deploying code with AWS Lambda

3.3 Projects Task and Activities

- Writing, testing, and debugging code for new features and functionality
- Participating in code reviews to ensure the quality and maintainability of the codebase
- Troubleshooting and debugging issues that arise in the codebase
- Documenting the design and implementation of software systems
- Learning about new technologies and programming languages relevant to the project
- Participating in team meetings and stand-ups
- Assisting with the deployment and maintenance of software systems
- Providing technical support to end users as needed

3.4 Challenges

It's not simple to create software and offer cloud native services. To create a great design, a bunch of creativity, originality, and brainstormed ideas are required. The difficulties that developers encounter on a daily basis are only known by developers.

- Adjusting to working in a professional team environment
- Managing time effectively to complete tasks and meet deadlines
- Communicating effectively with team members, including non-technical stakeholders
- Debugging and troubleshooting issues that arise in the codebase
- Keeping up with the latest developments and best practices in the field of software engineering
- Balancing the need to learn and contribute to the team with the need to complete assigned tasks
- Adapting to changes in project scope or requirements
- Managing the technical challenges of working with cloud-based systems and infrastructure
- Working with distributed teams and collaborating remotely.

CHAPTER 4

COMPETENCIES AND SMART PLAN

4.1 Competencies Earned

- Proficiency in one or more programming languages and technologies relevant to the project
- Experience with cloud-based systems and infrastructure
- Understanding of software development processes and practices, such as agile methodologies and version control
- Experience with debugging and troubleshooting code
- Ability to write clean, well-documented, and maintainable code
- Ability to work effectively as part of a team and collaborate with others
- Time management and project management skills
- Communication skills, including the ability to explain technical concepts to non-technical stakeholders
- Adaptability and the ability to learn and apply new technologies and concepts quickly
- Problem-solving skills and the ability to think critically and creatively.

4.2 Smart Plan

- Prior to becoming a visualizer, it's crucial to stay current with events and fashion trends.
- Monitor the activities of the largest corporations.
- Create a strategy for the project.
- Before beginning, do some research on the subject.
- Improve your tool skills overall.

4.3 Reflections

One of the most challenging aspects of my internship was learning the company's technology stack and development processes. There were a lot of new tools and frameworks to learn, and it took some time to get up to speed. However, I overcame this challenge by seeking help from my teammates and asking a lot of questions. I also made a conscious effort to spend

extra time reading documentation and working through tutorials on my own.

The most rewarding aspect of my internship was the opportunity to work on real-world projects and see the impact of my work. It was satisfying to see the features and functionality that I developed being used by end users, and I enjoyed the sense of accomplishment that came with completing each task.

I discovered a lot about myself as a software engineer during the internship. I discovered that I have a strong aptitude for problem-solving and enjoy the challenge of debugging and troubleshooting code. I also learned that I have a passion for cloud-based systems and infrastructure, and I am excited to continue exploring this area in my future career.

In terms of my technical skills, I feel that I have made significant progress during the internship. I have gained proficiency in a number of programming languages and technologies, and I have developed a solid foundation of software development best practices.

One of my favorite projects during the internship was the redesign of the company's customer portal. It was a complex project with many moving parts, but I enjoyed the opportunity to work on a project of such scope and impact. I also appreciated the opportunity to collaborate with other team members and learn from their expertise.

I hope that I have made a positive contribution to the team and the company during my internship. I have worked hard to complete my tasks to the best of my ability, and I have tried to be a proactive and engaged team member. I have also offered to help my teammates whenever I could, and I hope that I have been able to support them in their work.

For future interns in this role, my advice would be to stay curious and ask a lot of questions. There is so much to learn in this field, and internships are a great opportunity to gain exposure to new technologies and approaches. It is also important to be proactive and take the initiative to seek out learning opportunities, whether it be through self-study or working on side projects.

4.3.1 Problems and the Solutions

I can share my portfolio of what I have done at Cloudly Infotech Ltd. during my intern career. There are some works that I can show below.

4.3.2 Code Samples

These are example of some of my work that i have done during my internship

```go
392     func timeFormatWithUnit(expires_in int32, unit string) time.Time {
393         currentTime := time.Now().UTC()
394         switch strings.ToLower(unit) {
395         case "minutes":
396             return currentTime.Add(time.Minute * time.Duration(expires_in))
397         case "hours":
398             return currentTime.Add(time.Hour * time.Duration(expires_in))
399         case "days":
400             return currentTime.Add(time.Hour * time.Duration(expires_in*24))
401         default:
402             return currentTime
403         }
404     }
```

```go
31      // TESTING 1 (Fraction result are little bit different)
32      type testCase struct {
33          expiresIn int32
34          unit      string
35          expected  time.Time
36      }
        run test | debug test
37      func TestTimeFormatWithUnit(t *testing.T) {
38          testCases := []testCase{
39              {
40                  expiresIn: 10,
41                  unit:      "minutes",
42                  expected:  time.Now().UTC().Add(time.Minute * 10),
43              },
44              {
45                  expiresIn: 2,
46                  unit:      "hours",
47                  expected:  time.Now().UTC().Add(time.Hour * 2),
48              },
49              {
50                  expiresIn: 3,
51                  unit:      "days",
52                  expected:  time.Now().UTC().Add(time.Hour * 72),
53              },
54              {
55                  expiresIn: 3,
56                  unit:      "Invalid",
57                  expected:  time.Now().UTC(),
58              },
59          }
60
61          for _, tc := range testCases {
62              result := timeFormatWithUnit(tc.expiresIn, tc.unit)
63              if result != tc.expected {
64                  t.Errorf("For expiresIn = %d and unit = %s, expected %s but got %s", tc.expiresIn, tc.unit, tc.expected, result)
65              }
66          }
```

Figure 4.1: Generating time format unit for valid user

```
221
222    func PrimeTimeToDeliver(player_id string, campaignTableData *CampaignTable) (bool, error) {
223        scheduleTime := int(campaignTableData.ScheduleTime.Int32)
224        if len(campaignTableData.ScheduleDays) == 0 {
225            return true, nil
226        }
227        playerId, err := getValidPlayerId(player_id)
228        if err != nil {
229            fmt.Println("hey 1")
230            return false, err
231        }
232        playerHash := getPlayerHashValue(*playerId) // player_hash = Im::Targeting::Target.player(player_id)
233 >      if playerHash == nil || playerHash.TimeZoneOffset == nil || playerHash.PrimeTime == nil { ···
236        }
237        if len(campaignTableData.ScheduleDays) > 0 {
238            primeDay := time.Now().UTC().Add(time.Hour * (time.Duration(*playerHash.TimeZoneOffset))).Weekday()
239            fmt.Println(primeDay)
240            if !contains(campaignTableData.ScheduleDays, primeDay.String()) {
241                fmt.Println("hey 3")
242                return false, nil
243            }
244        }
245        primeTime := getPrimeTime(scheduleTime) // morning(1) / afternoon(2) /evening(3)
246        fmt.Println(primeTime)
247        primeValue, ok := playerHash.PrimeTime[primeTime]
248        if !ok || primeValue == "" {
249            fmt.Print("122222222222222222222222")
250            return false, fmt.Errorf(fmt.Sprintf("player hash does not contain prime_time: %s", primeTime))
251        }
252        primeTimeValue, err := strconv.Atoi(primeValue)
253        fmt.Println(primeTimeValue)
254        if err != nil {
255            fmt.Println("hey 5")
256            return false, fmt.Errorf("prime time must be of type int")
257        }
258        return false, nil
259    }
```

```
10    // TESTING 11
11    func TestPrimeTimeToDeliver(t *testing.T) {
12        type test struct {
13            name                 string
14            playerID             string
15            campaignTableData CampaignTable
16            result               bool
17            err                  error
18        }
19        tests := []test{
20            {
21                name:     " Empty schedule days ",
22                playerID: "123",
23                campaignTableData: CampaignTable{
24                    //ScheduleTime: sql.NullInt32{Int32: 1, Valid: true},
25                    ScheduleDays: ScheduleDays{},
26                },
27                result: true,
28                err:    nil,
29            },
30            {
31                name : " Testing GetValidPlayerId function ",
32                playerID: "",
33                campaignTableData: CampaignTable{
34                    //ScheduleTime: sql.NullInt32{Int32: 20, Valid: true},
35                    ScheduleDays: ScheduleDays{"Saturday", "Sunday"},
36                },
37                result: false,
38                err: fmt.Errorf("player_id can not be null"),
39            },
40            {
41                playerID: "456",
42                campaignTableData: CampaignTable{
43                    //ScheduleTime: sql.NullInt32{Int32: 18, Valid: true},
44                    ScheduleDays: ScheduleDays{"Sunday", "Monday", "Friday"},
45                },
46                result: false,
47                err:    nil,
48            },
49            {
50                playerID: "789",
51                campaignTableData: CampaignTable{
52                    //ScheduleTime: sql.NullInt32{Int32: 20, Valid: true},
53                    ScheduleDays: ScheduleDays{},
54                },
55                result: true,
```

```
55                result: true,
56                err:    nil,
57            },
58        }
59
60        for _, test := range tests {
61            result, err := PrimeTimeToDeliver(test.playerID, &test.campaignTableData)
62            if result != test.result || err != test.err {
63                t.Errorf("PrimeTimeToDeliver(%s, %v) = (%v, %v), want = (%v, %v)", test.playerID, test.campaignTableData, result, err, test.result, test.err)
64            }
65        }
66
67    }
68
```

Figure 4.2: Calculating prime time for valid player id

```go
func UserTimeToDeliver(player_id string, scheduleDays ScheduleDays) (bool, error) {
    if len(scheduleDays) == 0 {
        return true, nil
    }

    playerId, err := getValidPlayerId(player_id) //validates the player id
    if err != nil {
        return false, err
    }

    playerHash := getPlayerHashValue(*playerId) // hash value of the targeted player id
    //fmt.Println(playerHash)
    if playerHash == nil || playerHash.TimeZoneOffset == nil {
        return false, nil
    }
    //fmt.Println(*playerHash.TimeZoneOffset)
    userDay := time.Now().UTC().Add(time.Hour * (time.Duration(*playerHash.TimeZoneOffset))).Weekday()
    //fmt.Println(userDay)
    if contains(scheduleDays, userDay.String()) {
        return true, nil
    }
    return false, nil
}
```

```go
type testData struct {
    playerID        string
    scheduleDays    ScheduleDays
    timeZoneOffset  int
    //currentTime   time.Time
    expectedPass    bool
    expectedError   error
}

func TestUserTimeToDeliver(t *testing.T) {
    testCases := []testData{
        {
            playerID:       "1",
            scheduleDays:   ScheduleDays{"Monday", "Tuesday", "Wednesday"},
            timeZoneOffset: -6,
            //currentTime:   time.Date(2022, time.January, 3, 16, 0, 0, 0, time.UTC), // Monday 4:00pm
            expectedPass:   true,
            expectedError:  nil,
        },
        {
            playerID:       "2",
            scheduleDays:   ScheduleDays{"Monday", "Wednesday"},
            timeZoneOffset: -10,
            //currentTime:   time.Date(2022, time.January, 8, 16, 0, 0, 0, time.UTC), // Saturday 4:00pm
            expectedPass:   false,
            expectedError:  nil,
        },
        {
            playerID:       "2",
            scheduleDays:   ScheduleDays{},
            timeZoneOffset: -10,
            //currentTime:   time.Date(2022, time.January, 8, 16, 0, 0, 0, time.UTC), // Saturday 4:00pm
            expectedPass:   true,
            expectedError:  nil,
        },
        {
            playerID:       "",
            scheduleDays:   ScheduleDays{},
            timeZoneOffset: -10,
            //currentTime:   time.Date(2022, time.January, 8, 16, 0, 0, 0, time.UTC), // Saturday 4:00pm
            expectedPass:   true,
            expectedError:  fmt.Errorf("player_id can not be null"),
        },
```

```go
        {
            playerID:       "3fhgsdfh",
            scheduleDays:   ScheduleDays{},
            timeZoneOffset: -10,
            //currentTime:   time.Date(2022, time.January, 8, 16, 0, 0, 0, time.UTC), // Saturday 4:00pm
            expectedPass:   true,
            expectedError:  fmt.Errorf("player_id must be of type int"),
        },
    }

    for _, tc := range testCases {
        got, gotErr := UserTimeToDeliver(tc.playerID, tc.scheduleDays)
        if tc.expectedPass != got || !reflect.DeepEqual(tc.expectedError, gotErr) {
            t.Errorf("Test case of player id %s is failed: got %t, %v; want %t, %v", tc.playerID, got, gotErr, tc.expectedPass, tc.expectedError)
        }
    }
}
```

Figure 4.3: Calculating User Time for valid Player id

```go
23
24   // Insert a record into the database
25   func (d *Department) Insert(db *sql.DB) error {
26       t := reflect.TypeOf(d).Elem()
27       v := reflect.ValueOf(d).Elem()
28
29       // Create the list of column names and placeholders
30       columns := []string{}
31       placeholders := []string{}
32       values := []interface{}{}
33       for i := 0; i < t.NumField(); i++ {
34           columns = append(columns, t.Field(i).Name)
35           placeholders = append(placeholders, "?")
36           values = append(values, v.Field(i).Interface())
37       }
38
39       // Generate the INSERT statement
40       query := fmt.Sprintf("INSERT INTO %s (%s) VALUES (%s)",
41           t.Name(),
42           strings.Join(columns, ", "),
43           strings.Join(placeholders, ", "))
44
45       // Execute the query
46       _, err := db.Exec(query, values...)
47       if err != nil {
48           return err
49       }
50       return nil
51   }
52
```

```go
10
11   type Department struct {
12       ID int
13       Name string
14   }
15
     run test | debug test
16   func TestDepartment_Insert(t *testing.T) {
17       tests := []struct {
18               name string
19               department Department
20               expectedErr error
21       }{
22           {
23               name: "valid department insertion",
24               department: Department{
25                   ID: 1,
26                   Name: "Marketing",
27               },
28               expectedErr: nil,
29           },
30           {
31               name: "invalid department insertion with missing ID",
32               department: Department{
33                   Name: "HR",
34               },
35               expectedErr: fmt.Errorf("missing required field: ID"),
36           },
37           {
38               name: "invalid department insertion with missing Name",
39               department: Department{
40                   ID: 1,
41               },
42               expectedErr: fmt.Errorf("missing required field: Name"),
43           },
44       }
```

Figure 4.4: Dynamic insert function to insert data into postgres database

```
58    func (db *DB) Update(i interface{}, id int) error {
59        t := reflect.TypeOf(i).Elem()
60        v := reflect.ValueOf(i).Elem()
61        setStatements := []string{}
62        values := []interface{}{}
63        for i := 0; i < t.NumField(); i++ {
64            setStatements = append(setStatements, t.Field(i).Name+"=$"+strconv.Itoa(i+1))
65            values = append(values, v.Field(i).Interface())
66        }
67        values = append(values, id)
68
69        query := fmt.Sprintf("UPDATE %s SET %s WHERE id=$%d", t.Name(), strings.Join(setStatements, ", "), len(values))
70
71        // Execute
72        _, err := db.Exec(query, values...)
73        if err != nil {
74            return err
75        }
76        return nil
77    }
```

```
     run test | debug test
53    func TestUpdate(t *testing.T) {
54        db := &DB{}
55        err := db.Connect()
56        if err != nil {
57        t.Fatal(err)
58        }
59        defer db.Close()
60        testCases := []testCase{
61            {
62                description: "Update department name",
63                input: &Department{
64                    ID:        6075,
65                    Dept_Name: "Computer Science",
66                    DeptCode: "CS",
67                },
68                id:        6075,
69                expected: nil,
70            },
71            {
72                description: "Update non-existent department",
73                input: &Department{
74                    ID:        6076,
75                    Dept_Name: "Computer Science",
76                    DeptCode: "CS",
77                },
78                id:        6076,
79                expected: fmt.Errorf("record not found"),
80            },
81        }
82
83        for _, tc := range testCases {
84            t.Run(tc.description, func(t *testing.T) {
85                err := db.Update(tc.input, tc.id)
86                if err != tc.expected {
87                    t.Errorf("Expected: %v, Got: %v", tc.expected, err)
88                }
89            })
90        }
91    }
92
```

Figure 4.5: Dynamic insert function to Update data in the postgres database

4.3.3 Deployment
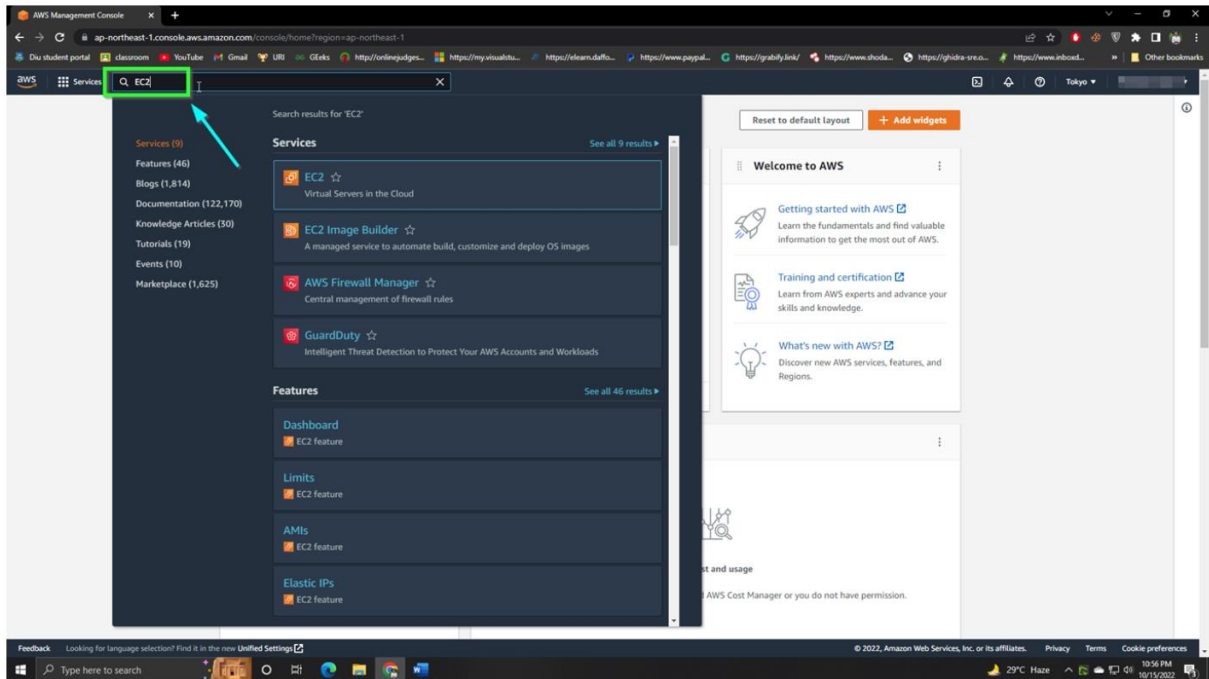
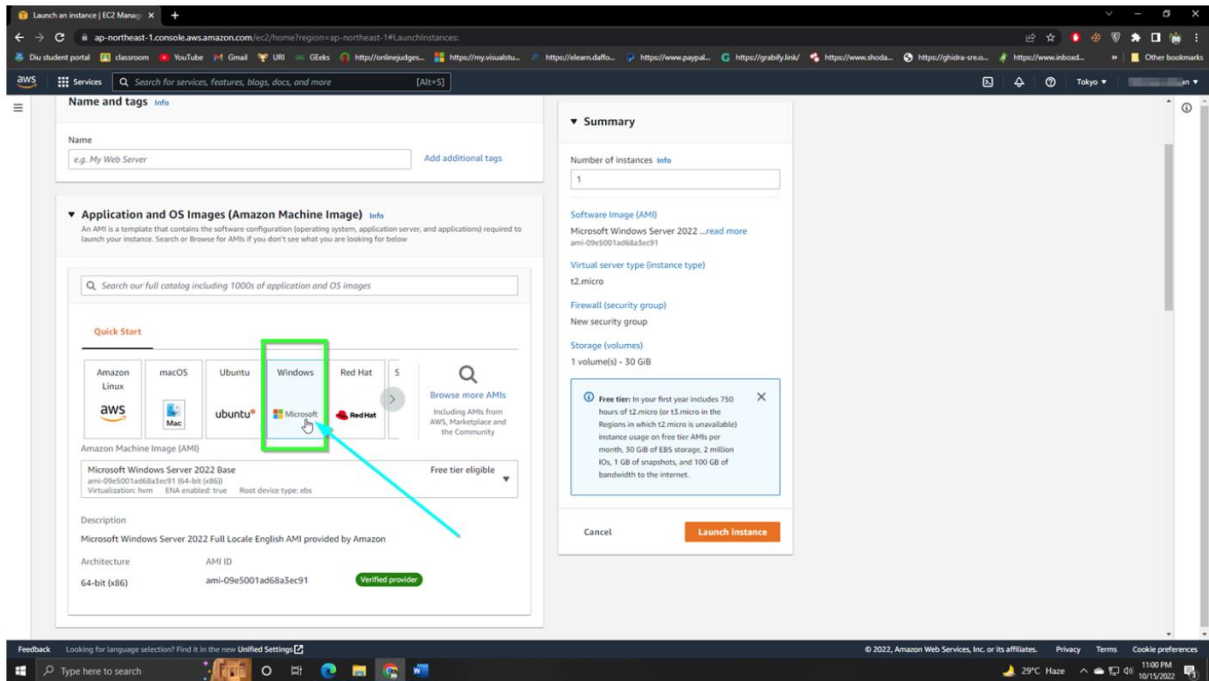Figure 4.6: EC2 search
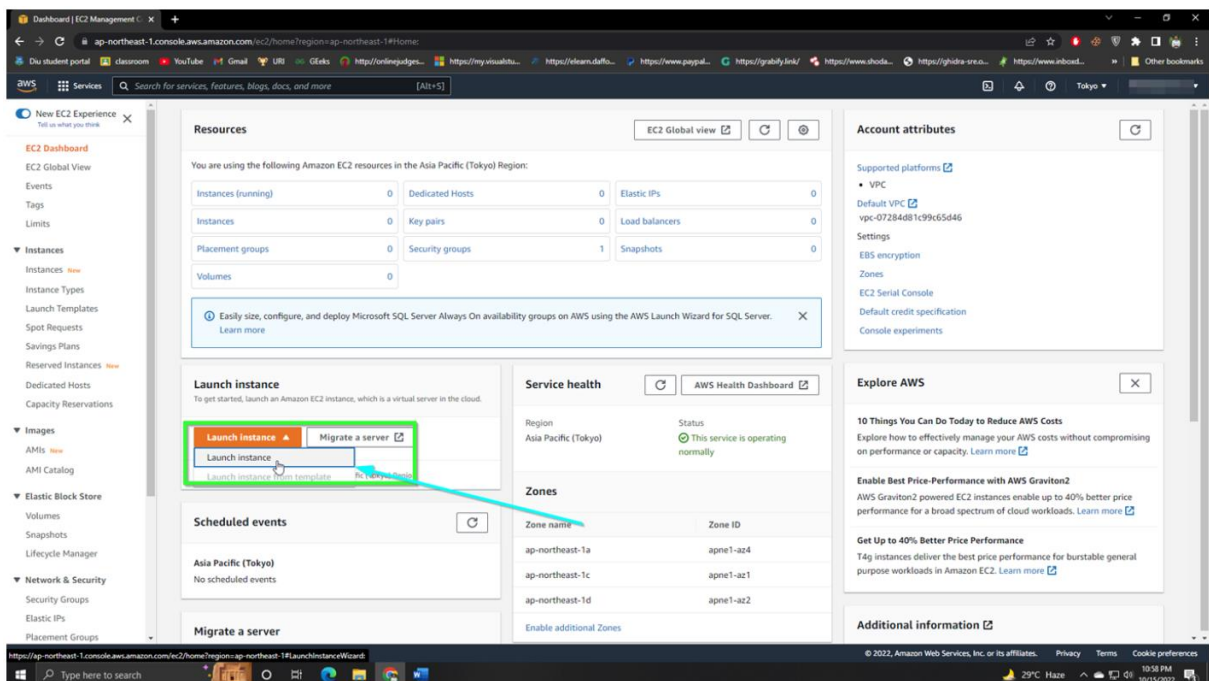
Figure 4.7: Launch Instance

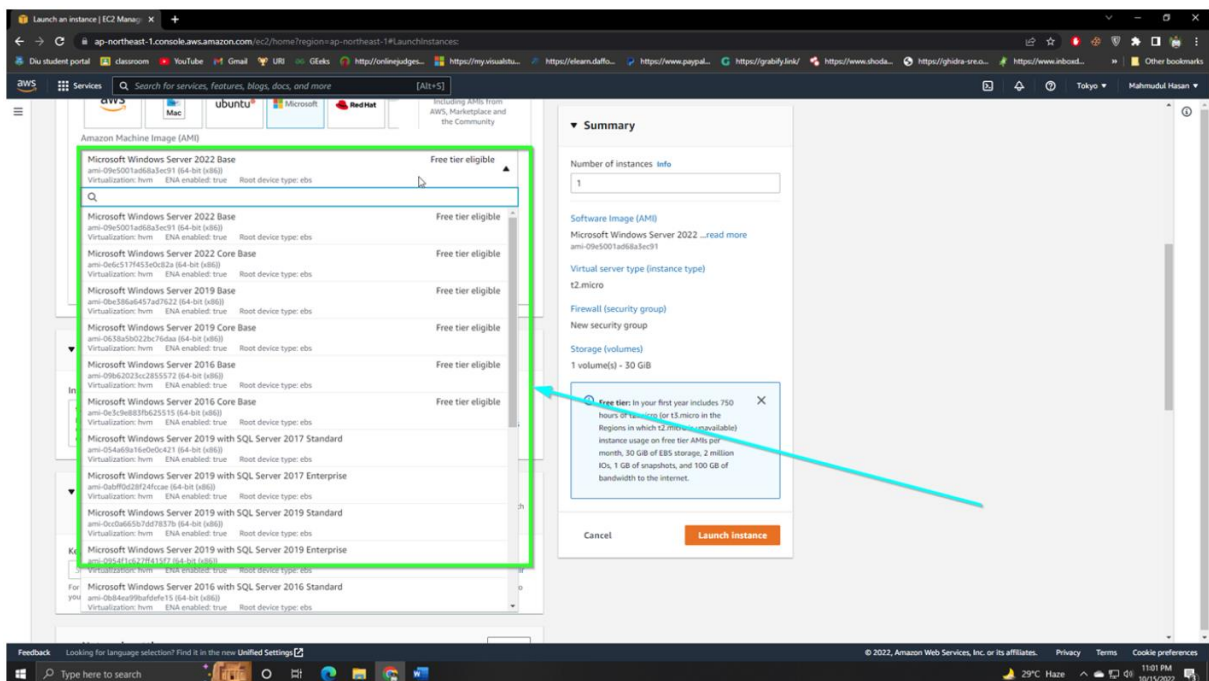Figure 4.8: Application and OS Image
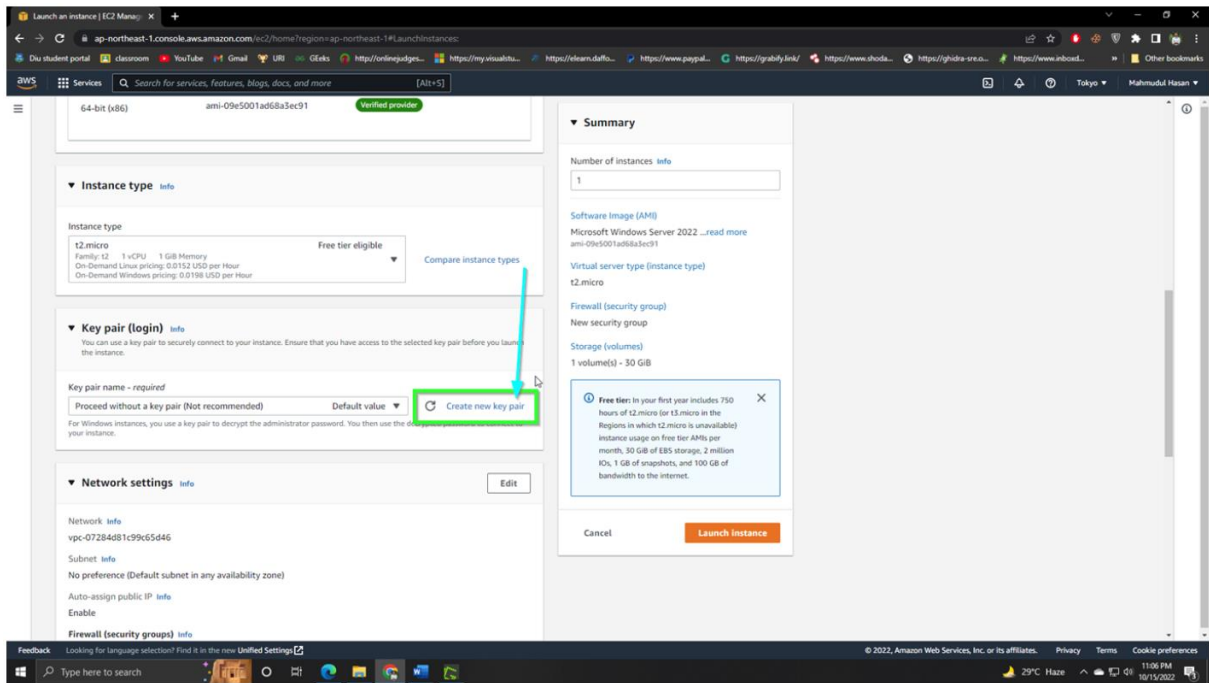

Figure 4.9: Amazon Machine Image
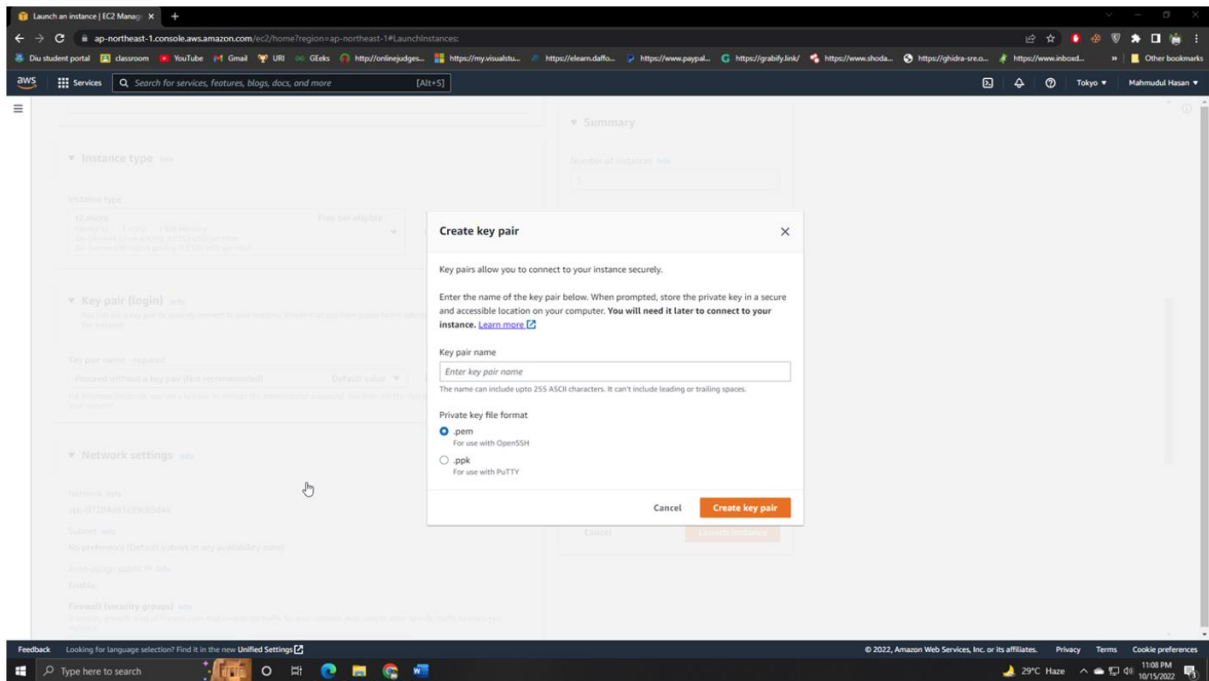
Figure 4.10: New key Pair

Figure 4.11: Creation of a .pem and creating key pair
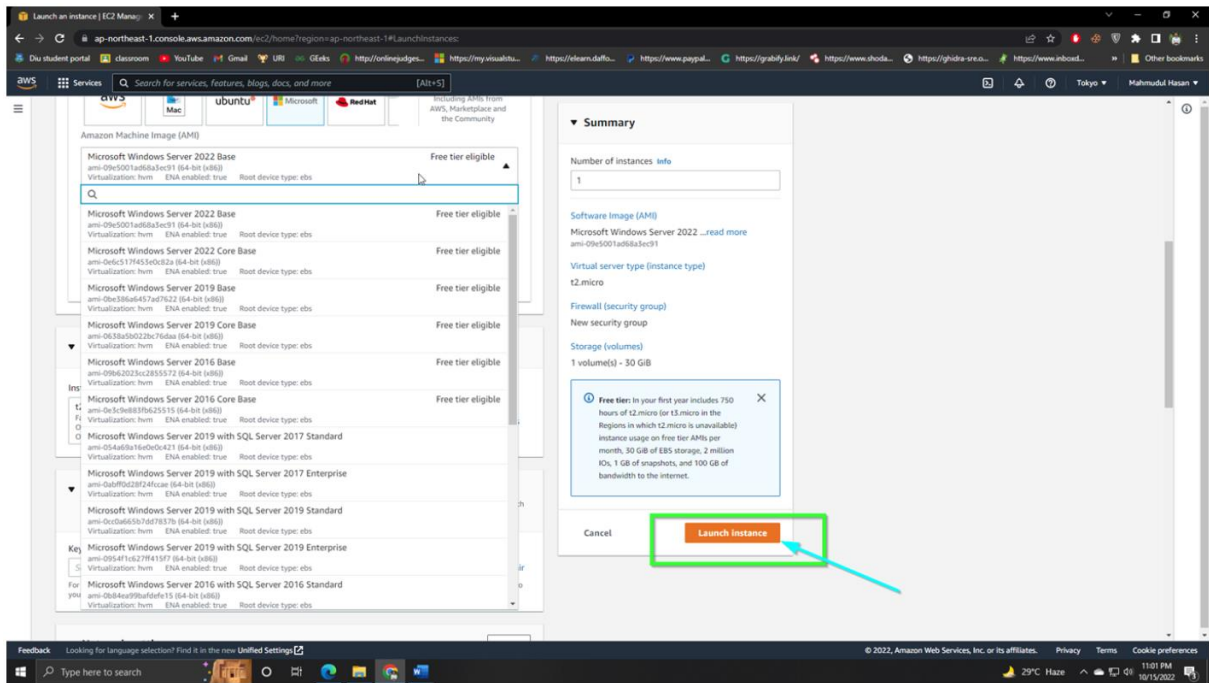
And All settings are set Default
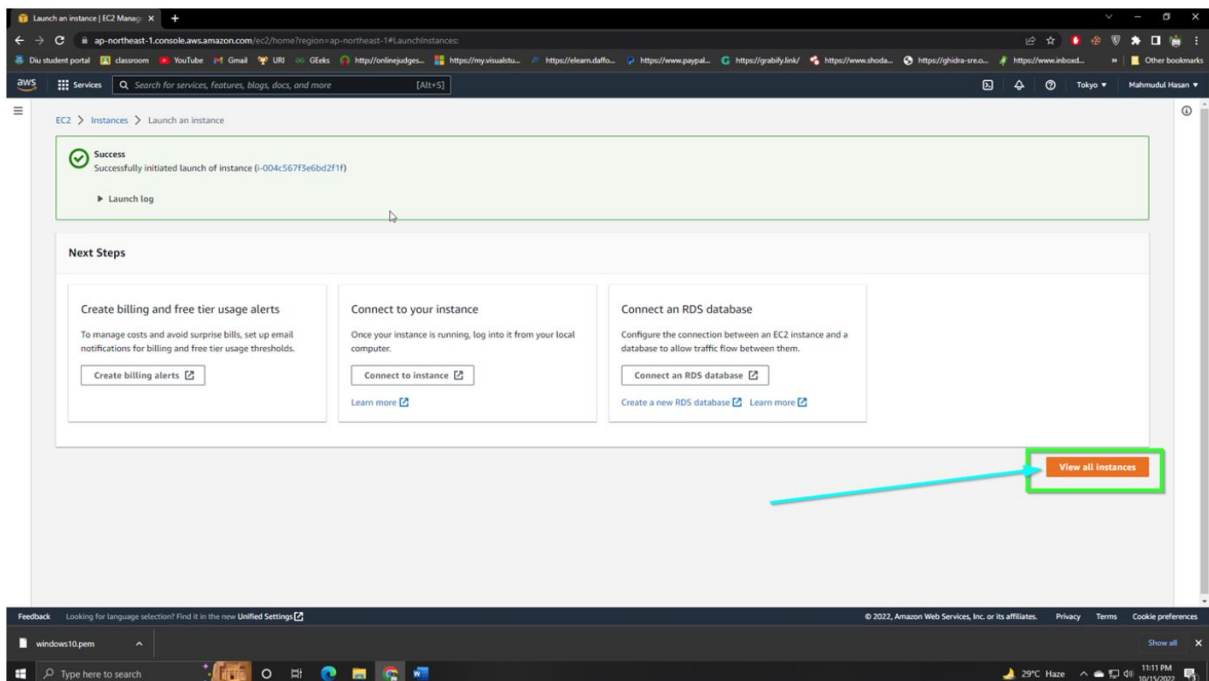
Figure 4.12: Launch Instance
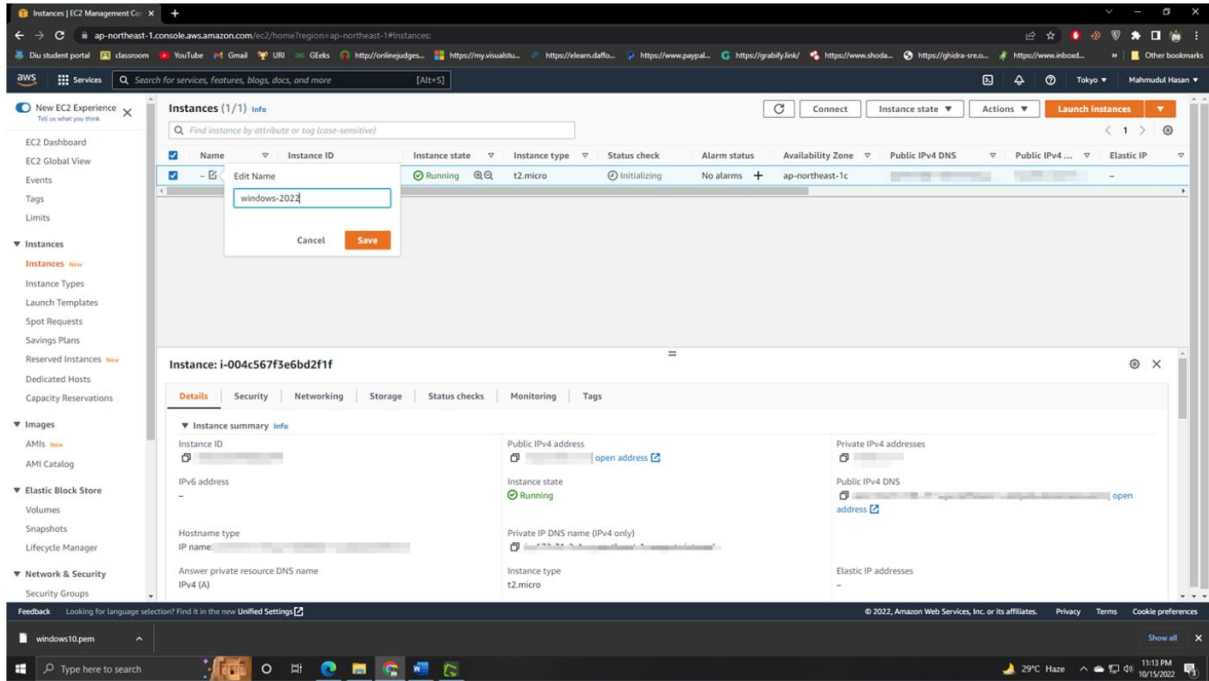

Figure 4.13: View all Instance
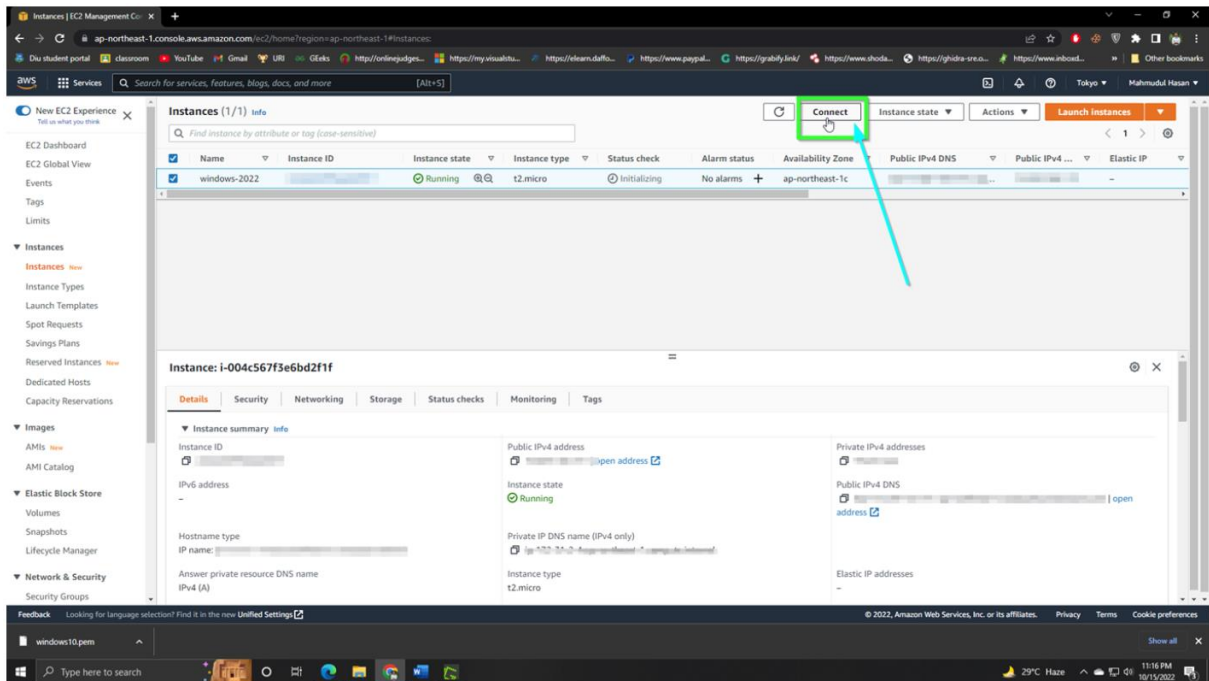
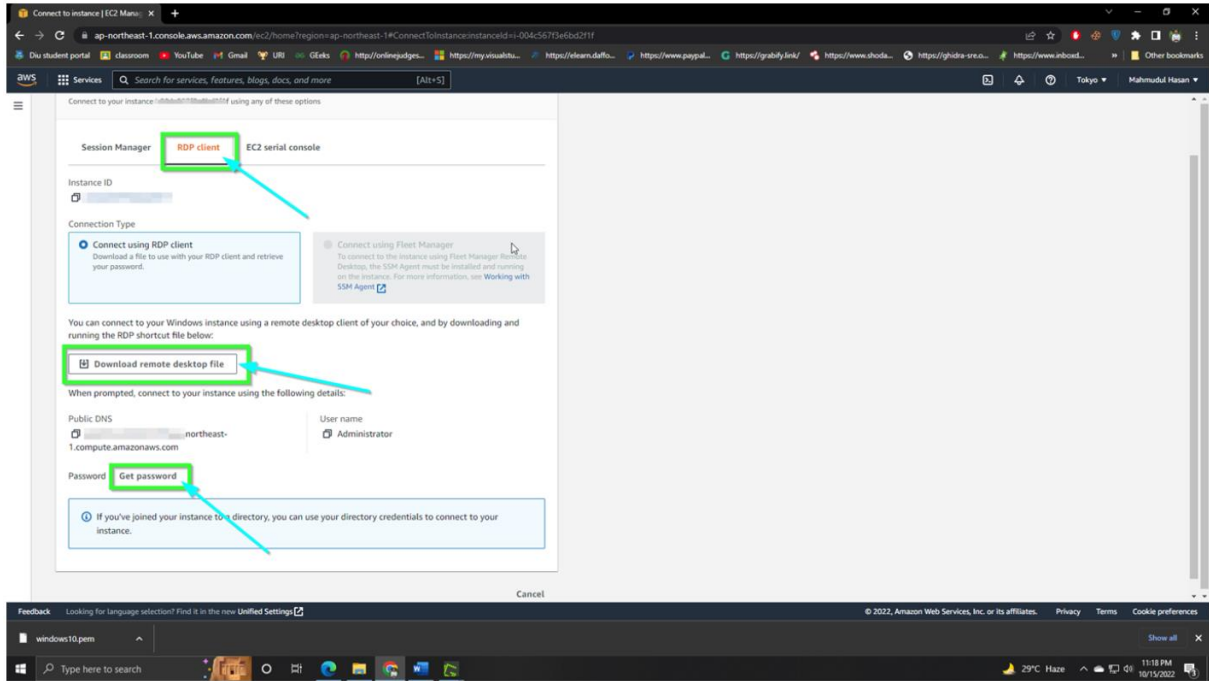Figure 4.14: Machine check box and Renaming Machine

Figure 4.15: Click Connect
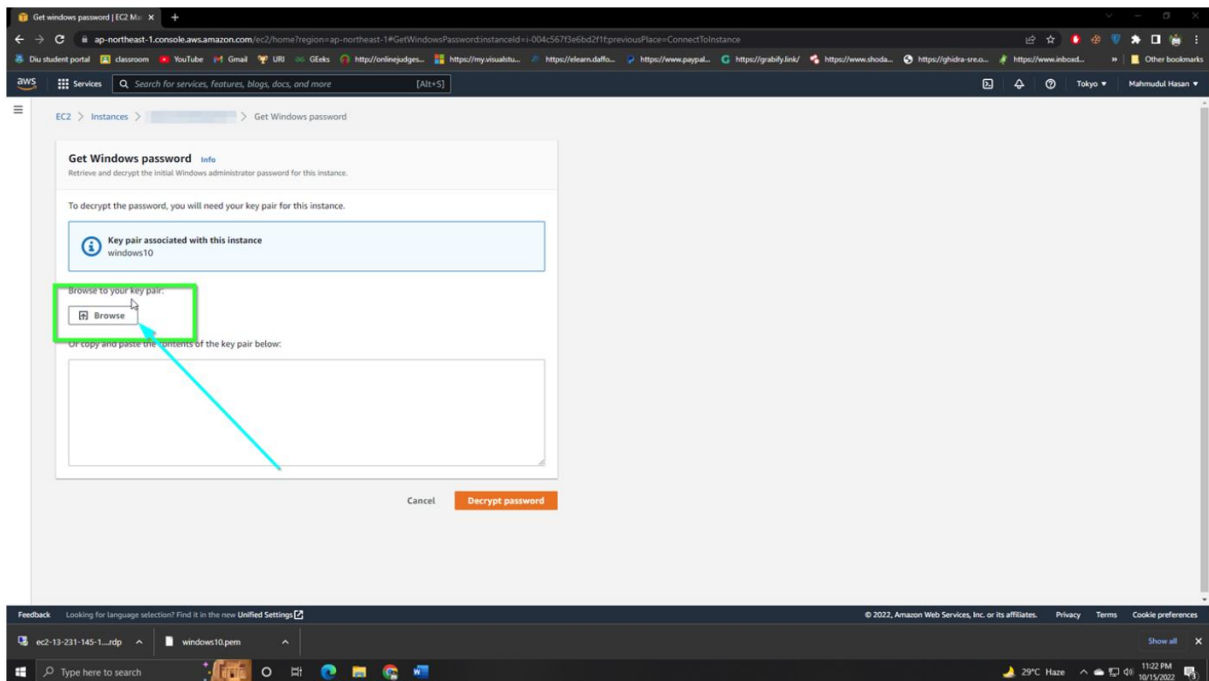
Figure 4.16: RDP Client and Downloading and Getting
Password

Figure 4.17: Redirect this page creating a pair key downloaded file.
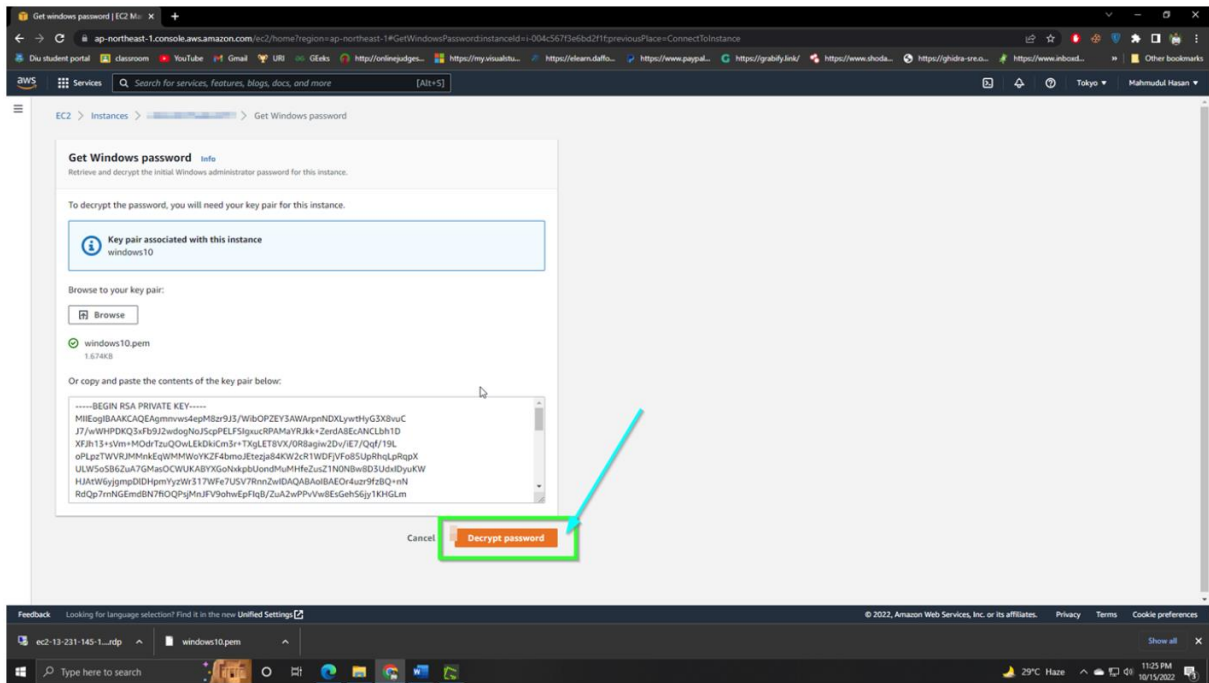
Figure 4.18: After put .pem keys and Decrypt Password
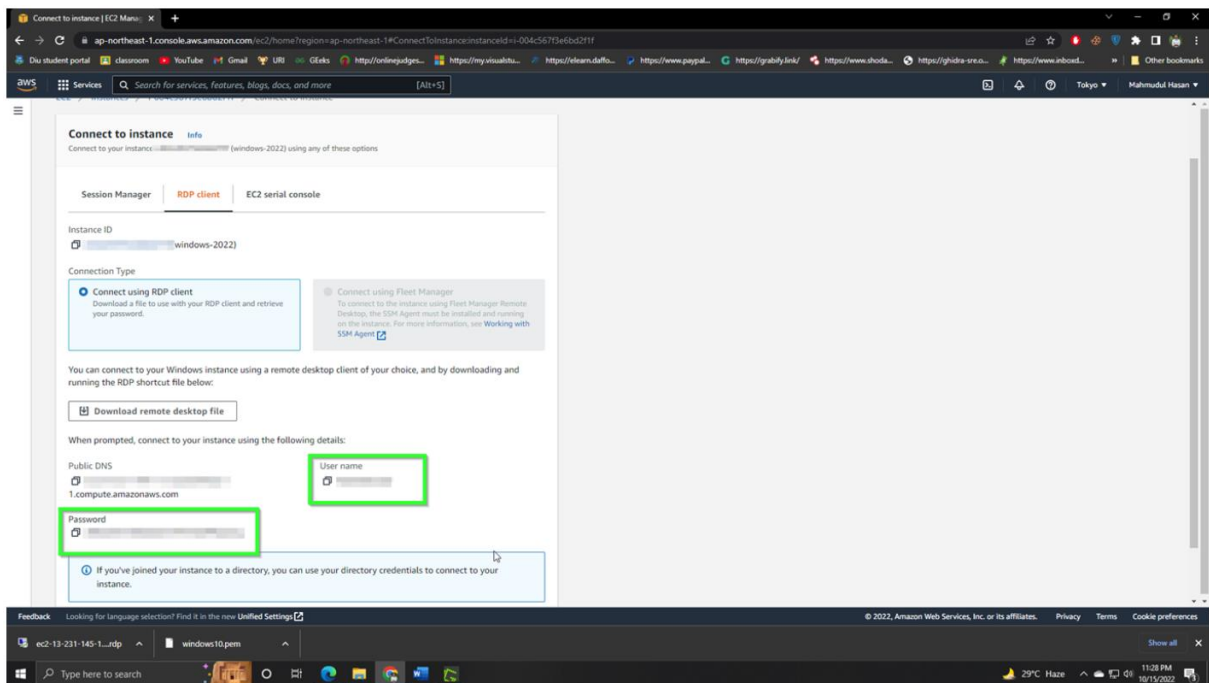
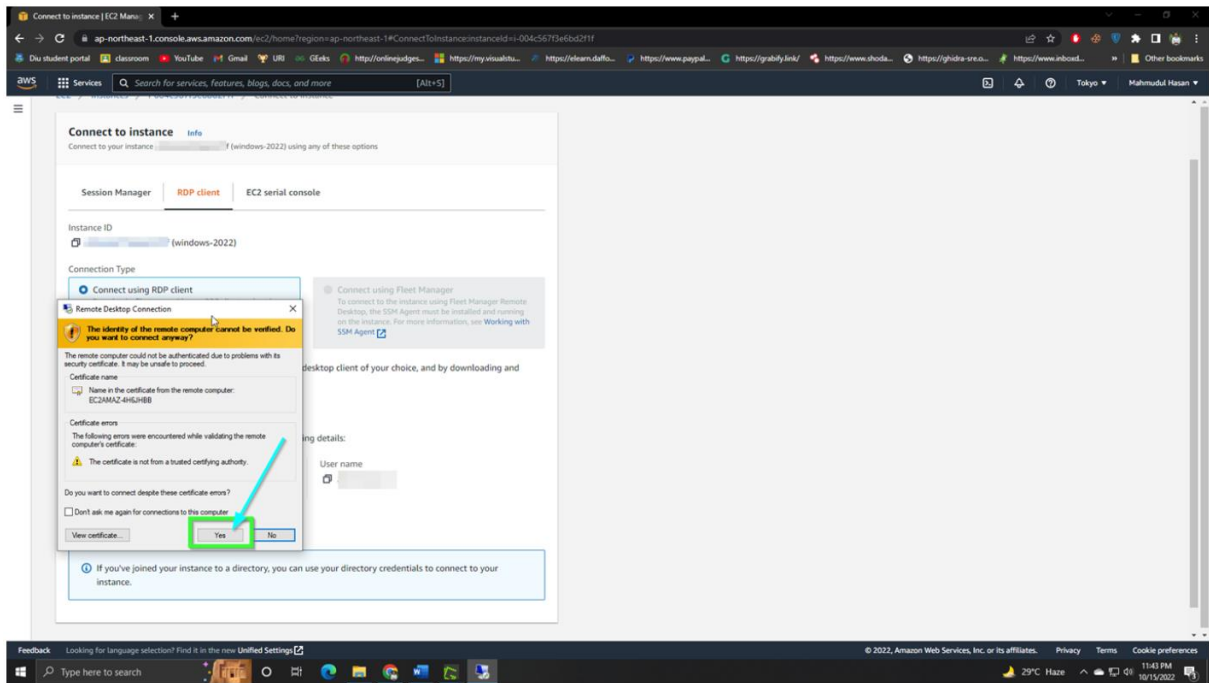Figure 4.19: Getting the copy of username and password

Figure 4.20: Click Yes and Wait

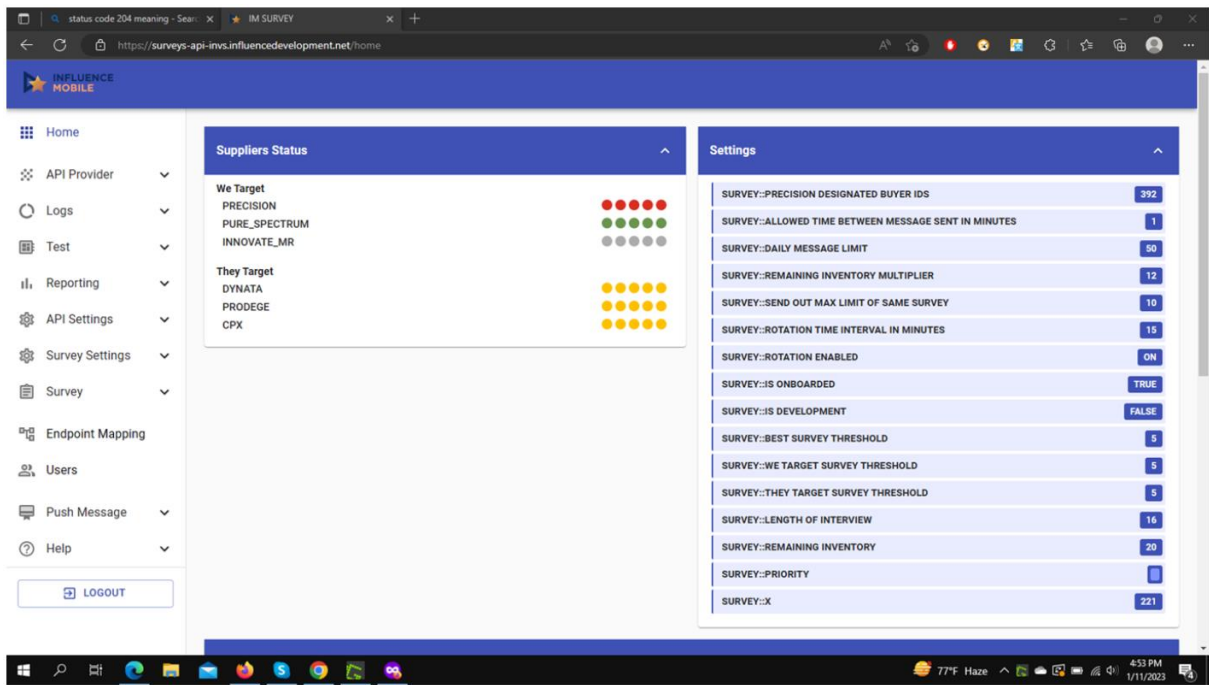## 4.3.4 UI during development phase
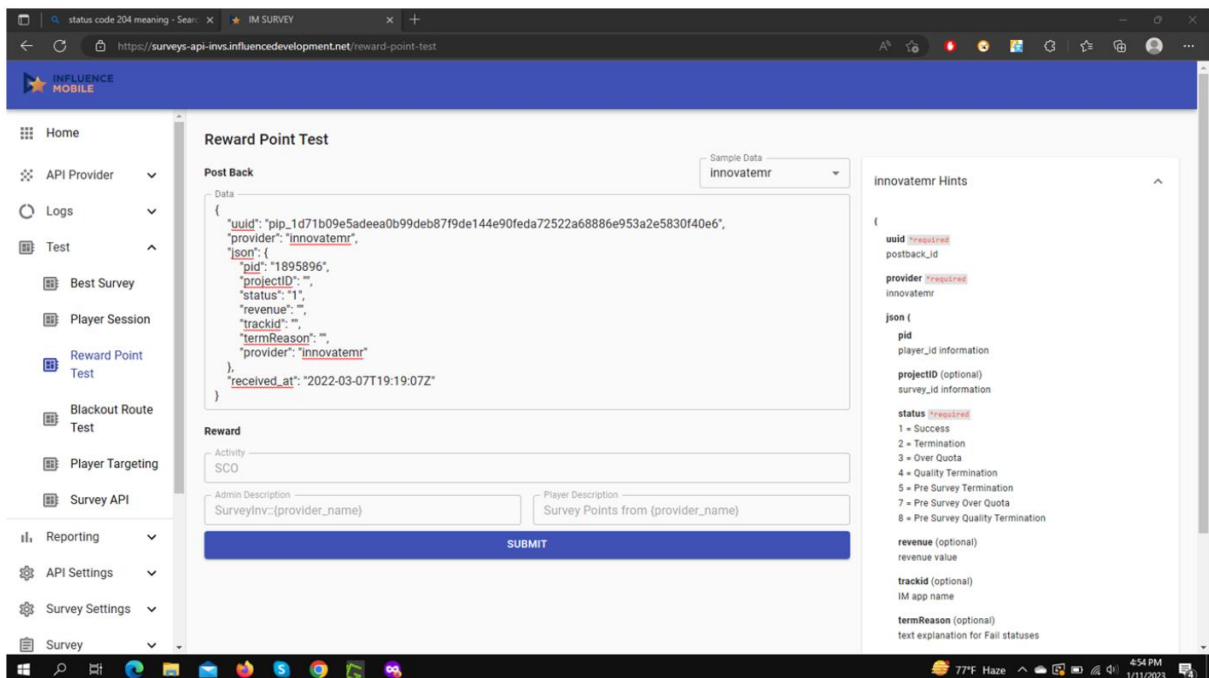

Figure 4.4.1: Home page (brief of the project)
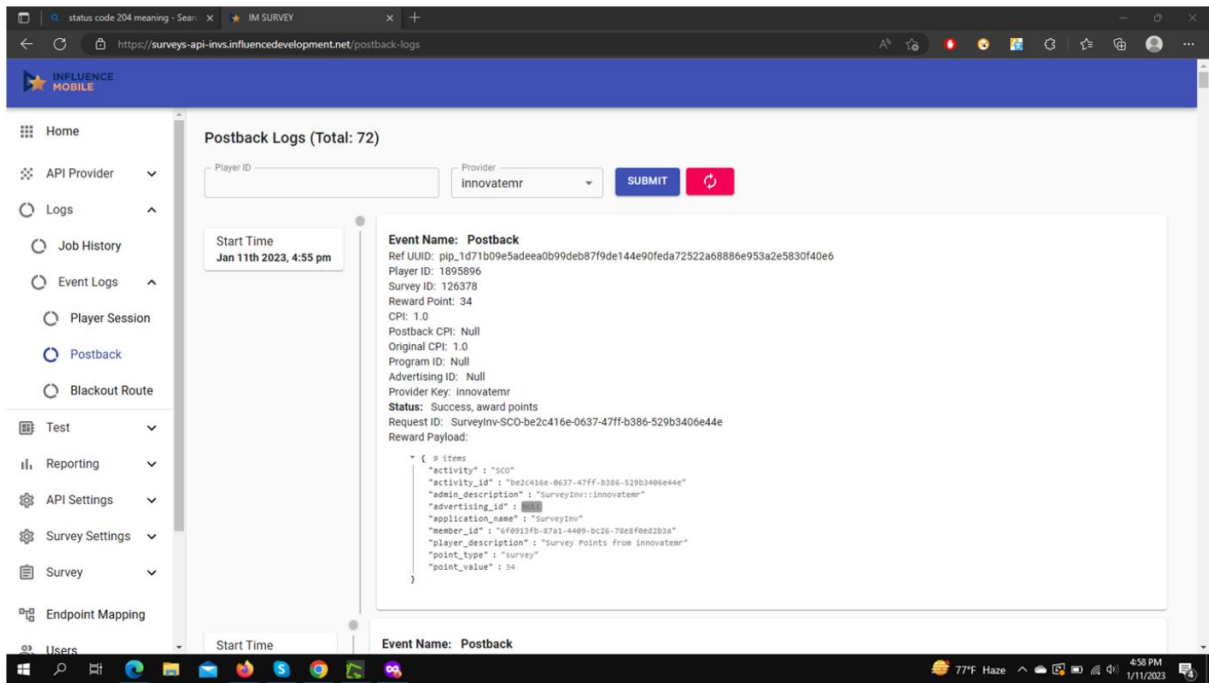

Figure 4.4.2: Postback
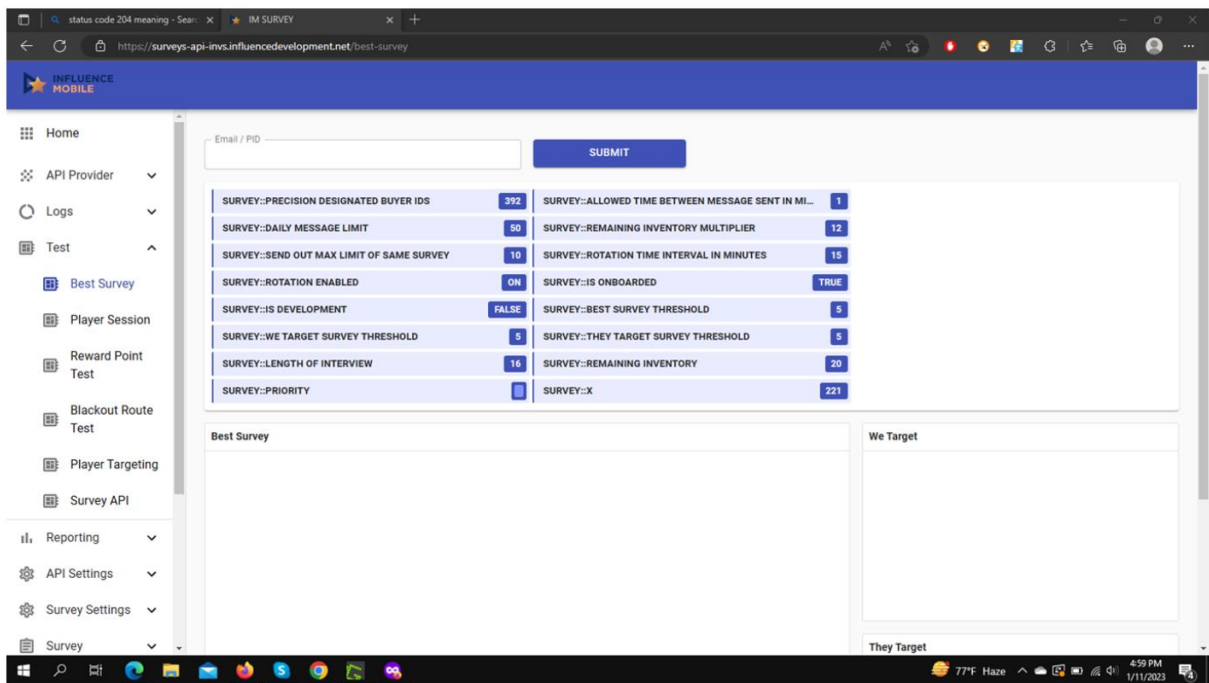
Figure 4.4.3: Result of Postback

Figure 4.4.4: Best Survey

CHAPTER 5

CONCLUSION AND FUTURE CAREER

5.1 Discussion and Conclusion

I have gained a lot of experience, so this internship is a wonderful chance for me to set everything I've learned to use. "**Maintaining and developing production level code as Software Engineer intern**" at Cloudly Infotech Ltd. During this internship, I got a chance to use GoLang, AWS Lambda, PostgreSQL, Several structured data formats such as JSON, CSV, Protofile etc. Altogether, I can say that the internship I'm referring about is really beneficial for my career as a software engineer because I gained a lot of knowledge and had opportunities to apply what I learned into practice. It enhanced both my learning about business and my professional experience for a software-based company. The experiences I gained from the described internship will undoubtedly be advantageous to me in my profession going forward.

5.2 Potential for a Future Career

It can be challenging to land a job, particularly if you lack experience. A completed internship may help me gain experience and explore the best job opportunities. My future objectives will be as a result of a successful internship:

- Understanding different programming languages
- To work on a development project.
- To be a Technical Supporter.
- To work in an IT company.
- To be a Software Engineer.

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https://cloudly.io/

[4] Discussion and Future Scope.

https://www.liinkedin.com/jobs/search/?currentJobId=3429055921&geoId=101165590&keywords=software%20engineer&llocation=United%20Kingdom&refresh=true

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Appendix

Appendix A: Reflection on the Internship

Internships are essentially two alternatives. One for BSc requirements. Project work is another alternative. I picked internship over project work because I wanted to learn about our country's employment market and sociocultural personally. At the same time, I think this is a fantastic chance for everyone to grow professionally.

I picked Cloudly Infotech Ltd as my internship company because of their market value and solid reputation. As an intern in Cloudly Infotech Ltd. My role is to develop and maintain production level code which will be used in a part of real-world software. The internet allows us to overcome geographical limitations and pursue new options for job in the profession.

One of the most important aspects of this experience that I will cherish is the teamwork and how well everyone works together. Everyone has a position here, and they consistently perform at a high level. If I ever need a cloud-based company or a technological solution in the future, I will without a doubt contact my colleagues at Cloudly Infotech Ltd, as they are the finest in the industry.

Appendix B: Company Information

Cloudy Infotech Limited was founded in Dhaka, Bangladesh, in 2011. Cloudly Infotech Ltd offers web-specific IT services. The comprehensive IT solution and one of Bangladesh's top IT services are both included in the design and networking sector.

Our experts and engineers have worked in national and multinational corporations, so they can give in-depth technical and management help. "Cloudly Infotech Ltd" has a history of investing heavily in superior technical and management personnel, making it dependable to a wide range of operations.

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