

**SOFTWARE TESTING AND QUALITY ASSURANCE**

**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

Supervised By

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**DAFFODIL INTERNATIONAL UNIVERSITY**

**DHAKA, BANGLADESH**

**26 DECEMBER 2017**

## **APPROVAL**

This Internship titled “**Software Testing and Quality Assurance**”, submitted by **Dewan Mohammad Fazle Rabbi** to the Department of Computer Science and Engineering, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering (BSc.) and approved as to its style and contents. The presentation has been held on 26 December 2017.

## **BOARD OF EXAMINERS**

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**Dr. Syed Akhter Hossain**

**Professor and Head**

Department of Computer Science and Engineering

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Daffodil International University

**Chairman**

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**Designation**

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Daffodil International University

**Internal Examiner**

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**(Name)**

**Designation**

Department of -----

Jahangirnagar University

**External Examiner**

## DECLARATION

I hereby declare that, this internship has been done by me, **Dewan Mohammad Fazle Rabbi, ID No: 132-15-2699** to the department of Computer Science and Engineering, Daffodil International University, under the supervision of **Nazmun Nessa Moon, Assistant Professor, Department of CSE, Daffodil International University.**

I also declare that neither this internship report nor any part of this internship report has been submitted elsewhere for award of any degree or diploma.

### Supervised by:

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**Nazmun Nessa Moon**  
Assistant Professor  
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### Submitted by:

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## ACKNOWLEDGEMENT

First I express our heartiest thanks and gratefulness to “**Almighty**” for His divine blessing to let me makes possible to complete the final year internship successfully.

I fell really grateful to and wish my profound my indebtedness to **Nazmun Nessa Moon, Assistant Professor**, Department of CSE, Daffodil International University, Dhaka. Deep Knowledge & keen interest of my supervisor in the field of “*Software Quality Assurance*” to carry out this project. Her endless patience ,scholarly guidance ,continual encouragement , constant and energetic supervision, constructive criticism , valuable advice ,reading many inferior draft and correcting them at all stage have made it possible to complete this internship.

I would like to express our heartiest gratitude to **Dr. Syed Akhter Hossain**, Professor and Head, Department of CSE, for his kind help to finish my internship and also to other faculty member and the staff of CSE department of Daffodil International University.

I would like to mention my gratitude to the entire programmer’s, QA members and employees of IT Division, ConstantMD, Dhaka. For supporting me and giving me pleasurable working experiences and helping me prepare this report.

I would like to thank our entire course mate in Daffodil International University, who took part in this discuss while completing the course work.

And finally but immensely express my utmost gratitude to my parents for their love and support, affection and inspiration.

## ABSTARCT

This internship report has been created for completion of my B.Sc at Daffodil International University. I have completed my internship over **“Software Testing and Quality Assurance”** at ConstantMD. It is a software and E-commerce company based on California, USA. This provides software and services for various industry sectors including healthcare, Supply Chain Management, Inventory, and Education. I have joined in ConstantMD and there I had many responsibilities like various kinds of Software Testing, Writing Test Cases, Test Summary Reports for tracking defects and fixes, working closely with developers during TC execution to ensure proper communication of issues, gathered experience with issue-tracking software, knowing about SDLC, review Product Requirements and Specifications, foresee potential issues, provide input of Functional Requirements and advise on design, created software manuals and other documents, dealt with clients for Software Products and Requirements, provided hands on approach to users. I have gained an exposure and hands on experience in different SQA techniques through my dedication, sincerity and highest level of professionalism.

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# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

Internship is known as an extrasensory perception to develop skills in technology, communication, quantitative reasoning, and teamwork from the different organizations that will help a great deal to make us a relation between the theoretical and practical knowledge and overall real life experience. It adds valuable enhancement to the student's oncoming walks of life as a student of Computer Science & Engineering (CSE) of Daffodil International University in order to satisfy requirements for a qualification.

Previously, I have studied a lot about SDLC, QA methodology, quality assurance strategy, specifications, UI design, and organizational structure and process courses during Last 3 years. But this is inadequate to know all of these solo theoretically because it's a immense territory of the modern software industry, As a result to get a strenuous sensation about these, I was interested to do this internship in ConstantMD.

This Internship Report is "**Software testing and quality assurance**" at ConstantMD. This report covers the whole internship in brief which I have done at ConstantMD.

## 1.2 Motivation

I realized that the first impression of a software company is its software quality. Software quality depends upon the customer satisfaction which can be achieved through applying standards. In this era achieving quality software is very important because of the high customer demands. I know Quality Assurance is the planned and systematic approach which ensures that software processes and products to conform requirements, standards and procedure. And these processes including all of the activities involved in designing, developing, enhancing and maintaining software. For this intention I settle up this topic as I am immensely interested in the SQA.

I found out that ConstantMD has an excellent reputation for customer satisfaction & services in web based software's and E-commerce arena. There I did a lot of activities on this topic which in the meanwhile given above.

During my previous knowledge and experiences I have enjoyed on communicative abilities, and gained experiences on different types of QA methodologies, cooperative teamwork and culture. Throughout this internship I have obtained some of qualities like, I am responsible and dare to initiative, I have good planning , and prioritizing skills, which ensures me that I was able to complete all tasks sufficiently daily.

Finally, doing an internship at ConstantMD not only gave me an opportunity to improve my existing technical skills, but also it awakened me a far-extend to learn many skills specific to the client support and interaction. That's why I believe that interacting with clients gave me an excellent communication and interpersonal skills. According to the above description of the tasks and responsibilities of this internship, I am sure that I am able to showcase these experiences to my future career footing.

### 1.3 Internship Objectives

- Gain practical knowledge about Software Quality Assurance.
- Gain practical knowledge about SDLC in a live project platform.
- Gain practical knowledge about various testing tools and techniques.
- Gaining essential background knowledge.
- Gain practical knowledge about writing Test Cases, Test Summary Reports for tracking issues and fixes.
- Gain experience with issue-tracking software ( PLM and JIRA).
- Follow-up potential issues and working closely with developers to ensure proper communication of issues.
- Gain experience with investigation and reporting of operational/technical issues arising.
- To know how to deal with clients for software specification, input method , UI and requirements.
- To know how to interact with developers and advice on design.
- Plan, define and new UI designs from clients and functional improvements.
- Gain practical experience to working in a team-oriented, corporate environment.
- Providing hands on approach to users.
- Gain experience with creating software manuals and other documents.
- To improve communication and administrative skills.
- Perfecting interpersonal skills.
- To improve analytical and research skills.
- Understanding of professional ethics, values and beliefs.
- Understanding of professional culture and CoC.
- Gain knowledge of professional journals and newsletters.
- Gain knowledge of key professionals.
- Gain knowledge of professional association's activities.
- Ability to work under pressure to meet deadlines and work independently.
- And finally able to showcase these experiences to my future career footing.

## **1.4 Introduction to the Company**

ConstantMD is a software and ecommerce company based on California, USA. Company is founded on first January of 2011. Which develop software and services for various industry sectors including healthcare, Supply Chain Management, Inventory and Education. They have developed a robust information technology platform called ConstantMD that can provide cost-effective, secure software products and services. ConstantMD Business software runs as a Software-as-a-Service from secure ConstantMD Cloud. These application can be used from smart phone, tablet or any device at any time. They have many products and services that are used in 20 countries by thousands of businesses and healthcare providers, healthcare institutions and patients.

ConstantMD Software is used acrossed various industry including Retail, Logistics, Business Services, Healthcare, Telecommunication, Higher Education, Primary Education, Technology and Media, Fashion and Garments, Government and Local etc. The company has also provided Custom App Development Services for iPhone and Android platform. The company is specialized in custom mobile application development and have over 5 years of industry experience developing solutions for enterprise. They have a dedicated team of engineers for app development for smartphone and tablets by following industry standard best practices. They are also equipped with a very experienced Software Quality Assurance Team. ConstantMD is offering a full range of custom software development services for a wide variety of verticals and business domains [1].

### **USA Office**

ConstantMD

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Email: [support@constantmd.com](mailto:support@constantmd.com)

Website: [www.constantmd.com](http://www.constantmd.com)

### **Dhaka, Bangladesh Office**

ConstantMD

9/D Razia Mansion

184 Senpara Parbota, Mirpur-10

Phone: +8801706048485

## **1.5 Report Layout**

The layout of my report is assorted by Chapter 1: Introductory oration of this internship, discussion about my Objectives, Motivation of my internship and given detail information about the Organization. Chapter 2: Introduction to the organization, their Product and Market situations, Target Groups, SWOT Analysis and their organizational Structure. Chapter 3: Discussion about daily tasks and activities, Events and Activities, Project Tasks and Activities, and Challenges. Chapter 4: Describes which competencies I have earned through my internship, Smart Plan and Reflections includes learning outcomes Chapter 5: Overall Discussion and Conclusion of this report, and Future Scopes for Further Career.

## **CHAPTER 2**

### **ORGANIZATION**

#### **2.1 Introduction**

There are several important aspects to consider about the goal of ConstantMD. These attributes are deliberate and recognized. Which features are carefully maintained and established on their strategic planning process. That's why ConstantMD approached a healthy platform at present. They already achieved following sort of qualities kind of ongoing leadership and management, planning, product and service development, marketing and financial management etc. To carry out these practices in a healthy manner, it's important to know the basic "territory" in which these practices are carried out [2].

#### **Vision**

“Easier Business with Technology”

#### **Mission**

ConstantMD operates according to an overall purpose-

- a. To develop robust software and automation technology for business, medical providers and institutions that increase efficiency, decrease cost, improve quality and safety of business and medical care.
- b. Develop technology that could continuously monitor business, its growth, provide accurate information help manage business easily.
- c. Help Bangladeshi companies grow faster and provide low-cost software services to manage their business efficiently.
- d. Build secure Cloud based services, accessible from anywhere and from any devices.

#### **Values**

“Opportunities, mentoring and training to help you realize your potential and goals”

#### **Strategic Goals**

To provide Cloud based Software-as-a-Service for Business, Healthcare Industry and Academic Institutions.

## 2.2 Product and Market Situation

ConstantMD provides Cloud based Software-as-a-Service for Business, Healthcare Industry and Academic Institutions. It is focused on Software and Web Development, Software Development, e-Commerce, Business Management by providing low-cost Software-as-a-Service. They treat each of their clients individually and therefore they do not offer set prices on any service. They offer affordable low cost business solutions to the organizations, Healthcare Industry and Academic Institutions. Some IT services which offered by them are given below.

### ➤ **Business Management Software:**

Whether a company/business organization needs an application to perform their various business functions in order to increase their productivity, measure their productivity and to perform their other business functions accurately. Also they needs such an application to perform their specific business purposes or different business environments. ConstantMD offers a modern interactive business software which have a graphical user interface that can perform query/ modify/ input data and view results instantaneously. It also able to run reports instantaneously.

Ideal for Sales, Inventory, Supply Chain Management, Multi-Center location, Accounting, Payroll, Human Resource Management.

### **Main Features:**

Customer Management.

Sales and Invoice Management.

Inventory Management.

Supplier Management.

Vendor Management.

Distributed Inventory, Supply Chain Management.

Purchase Order Management.

Product Management.

Product Batching Management.

Product Shipment Management.

Product Barcode Integration.

Multiple Shop/Location Management.

Accounting - Charts of Accounts, Balance Sheet, Profit Loss, Statements.

Employee Management.

Human Resource Management.

Payroll Management Hourly and Full-time.

Role Based Security and Feature Management.

Comprehensive Reporting including Daily, Monthly and Summary.

➤ **Point of Sale (POS):**

ConstantMD has created point of sale (POS) application which is intended to perform some of business functions regarding all about retail transactions in order to increase sales efficiency. With this application the merchant can calculate their amount owed by the customer, indicates that amount, automatically prepare an invoice for the customer through cash register POS printer, and provide the options for the customer to make payment. To calculate the amount owed by a customer, the merchant may use various devices such as weighing scales, barcode scanners etc. To make a payment, payment terminals, touch screens, and other hardware and software options can be used. Selling prices are linked to the product code of an item when adding stock, so the cashier merely needs to scan this code to process a sale. If there is a price change, this can also be easily done through the inventory window. It also provides some of additional functionality, for instance ability to implement various types of discounts, a loyalty scheme for customers, inventory management, CRM, financials, or warehousing and more efficient stock control.

Ideal for Sales, Inventory, Product Management, Supply Chain Management, Multi-Center location.

**Main Features:**

Customer Management.

Sales and Invoice Management.

Inventory Management.

Supplier Management.

Vendor Management.

Distributed Inventory, Supply Chain Management.



Purchase Order Management.  
Product Management.  
Product Batching Management.  
Product Shipment Management.  
Product Barcode Integration.  
Multiple Shop/Location Management.  
Employee Management.  
Role Based Security and Feature Management.  
Comprehensive Reporting including Daily, Monthly and Summary.

➤ **Healthcare Management Software (EHR):**

The Electronic Health Record (EHR) is a Computer-Based Patient Record system which is an Essential Technology for Health Care to ensure quality, safety, and efficiency. It is called as "the central nervous system" of the hospital. ConstantMD has created this application to transform the health system to improve quality and enhance safety in medical sector. It is a great tool for physicians, nurses, sisters, word boys, admin and all other stuffs. Achieving the true benefits of EHR systems requires the transformation of practices, based on quality improvement methodologies, system and team based care, and evidence-based medicine. The EHR becomes a tool through which the family medicine office can transform practices to meet its needs and the needs of its patients. Enhanced workflows and access to information make the practice of medicine more efficient for physicians and their staff. Decision support and automated reminders help the practice deliver safer and higher quality care to patients and to the community.

Ideal for Clinic, Hospitals, Labs, Pharmaceuticals, Diagnostic Center, Dentistry, Optometry and Medical Practice.

**Main Features:**

Patient Management - In Patient/Out Patient.

Patient Chart Management.

Patient Schedule Management.

Secure Access to Patient Charts.

Message Center.

Scheduling Management.

Billing Management.

Beds/Room/Ward Management.

Electronic Prescriptions.

Physician Management.

Sales and Purchase Management.

Inventory Management.

Lab Management.

Test Management.

Operation Theater Management.

Physician Referral Commission Management.

Pharmacy Management.

Accounting - Charts of Accounts, Balance Sheet, Profit Loss, Statements.

Employee Management.

Role Based Security and Feature Management.

Comprehensive Report including Daily, Monthly and Summary.

Built on latest recommendation of International Standards in healthcare.

➤ **Academic Management Software (School Management):**

ConstantMD School Management System provides user-friendly dashboards with login access for teachers, non-teaching staff, students, parents and management personnel of the institution. The various modules are available in order to facilitate all the processes of the institution, from admission of new students to generating transfer certificates when students complete their studies. ConstantMD School Management has modules to manage Timetable, Attendance, Examinations, Tabulation sheets, School Notice, Hostel, Library, Transportation, School Calendar, Events and many more. It has a fully-fledged Human Resource module to manage the payroll and employee pay slips. The Finance module helps to plan and allot different fee structures to the students. There is an internal messaging system within a territory, but they can also integrate it with external communication tools like email and texting. ConstantMD also currently implementing an excellent collaboration tool using its Task, Discussion, Poll, Blog and Video conference plugins.

Designed for Academic Institutions - School, College, Universities. Manage all activities from attendance to Final Exams, Sessions, Curriculum and Tests.

**Main Features:**

Student Management.

Teacher Management.

Attendance Management includes real-time reporting to parents.

Class, Section, Subject, Grade Management.

Academic Session/Calendar Management.

Class Scheduling and Routine Management.

Exam, Tests Management.

Events, Holiday Management.

Sales and Invoice Management.

Inventory Management.

Supplier, Vendor Management.

Purchase Order Management.

Accounting - Charts of Accounts, Balance Sheet, Profit Loss, Statements.

Employee Management.

Human Resource Management.

Payroll Management Hourly and Full-time.

Role Based Security and Feature Management.

Comprehensive Reporting including Daily, Monthly and Summary.

➤ **Custom Software Development:**

ConstantMD is offering a full range of custom software development services for a wide variety of verticals and business domains. They provided any and every stage of the software development life cycle: from conceptualization, business analysis and prototyping to the development and deployment of a complete solution.

a. Custom Development :

ConstantMD not only create custom software, but also they have build solutions for business problems.

b. Software Product Development :

ConstantMD has also provided software product development services as per their user requirement and standard.

➤ **Custom App Development:**

ConstantMD has specialized clan in custom mobile application development and have over 5 years of industry experience developing solutions for enterprise. They have a dedicated team of engineers for app development for smartphone and tablets. They follow industry standard best practices. They are equipped with a very experienced Software Quality Assurance Team.

### **e-Commerce Platform:**

A content management system (CMS) is a system used to manage the content of a website. ConstantMD does understand the importance of Managing Site Content. Managing Site Content offers many measurable business benefits. Having a web site that can manage itself is the perfect solution for any company. Nirvor.com is an e-Commerce Platform with thousands of products. Any vendors can register and sale their products through Nirvor.com.

### **➤ e-Book Platform:**

In today's knowledge economy, the marketing landscape for businesses has changed dramatically. Companies that hope to effectively spread the word about their offerings, attract customers, engage with them and ultimately retain them, need to adapt to these changes. ConstantMD tries their best to maintain those rules. Nirvor helps authors and publishers around the world to convert their books to eBook. Publishers can sell those books to the readers around the world. Author/publisher can set the price per download. Total revenue for the author/publisher will be transferred to them at the end of the month.

ConstantMD has professional technicians will become intimately familiar with any business's needs and be there whenever clients need help. They provide this all at a fraction of the cost, because IT is their business and they can optimize costs in this area without sacrificing service. A business is important to them and they want to make sure that their clients are satisfied with their application or products.

### **➤ Market Situation:**

- **Payment Method:** Monthly Subscription based.
- **ConstantMD Clients:** ConstantMD offers 3 months support on any delivered product or solutions developed by the developer of the company. They do believe clients support. ConstantMD Software is used acrossed various industries including: Retail, Logistics, Business Services, Healthcare, Telecommunication, Higher Education, Primary Education, Technology and Media, Fashion and Garments, Government and Local.

- **Notable Clients:** Some of their happy clients ranging from Startups to Enterprise.
  1. Grameen Shakti, Grameen Distribution Ltd. Grameen Bank Complex.
  2. Symphony : EDISON Group.
  3. Care General Hospital and Diagonostic Center.
  4. MM Telecom and Computer.
  5. Lalmati Agro-Based Industries Limited.

## 2.3 Target Group

ConstantMD helps clients to succeed in their business by providing low-cost Software-as-a-Service. ConstantMD manages all aspects of Software needs for its clients, so client can focus on its business. ConstantMD provides Software-as-a-Service for Business Software including Sales, Inventory, Supply Chain Management, POS, Accounting, ERP for all kinds of business from startup to Enterprise. It also provides a Healthcare Information Technology Platform for healthcare industry. It developed products and services to patients, physicians, physician groups, other health professionals, hospitals, nursing homes, health insurance companies, employers, government agencies and other healthcare organizations. Nirvor.com - First eBook Platform in Bangladesh with e-reader and e-commerce capabilities developed by ConstantMD. ConstantMD is developing low-cost Cloud based software for School, College, and University Management etc.

**Specialties:** Software Development, Web Development and Desktop Software Development, iOS and Android App Development, Business Process Automation, Custom Software Development.

## 2.4 SWOT Analysis

SWOT Analysis is a fruitful technique for understanding about organizational Strengths and Weaknesses, and also for identifying both the Opportunities open to us and the Threats we face. Strengths and weaknesses are representing the internal factors. Opportunities and threats are representing the external factors. A strength is a positive internal factor. A weakness is a negative internal factor. An opportunity is a positive external factor. A threat is a negative external factor.

A SWOT analysis is given below which is associated with a situation by considering all the aspects of the current business and market situation of ConstantMD which is shown in Fig: 2.1 .



Figure 2.1: SWOT Analysis of current Product and Market situation

## 2.5 Organizational Structure

Organizational structure is a system that consists of institutional rules and policies designed to outline how various work roles and responsibilities are delegated, controlled and coordinated. Organizational structure also determines how information flows from level to level within the company. Organizational structure of ConstantMD is illustrated in the Figure: 2.2. This defined chain of command [3].

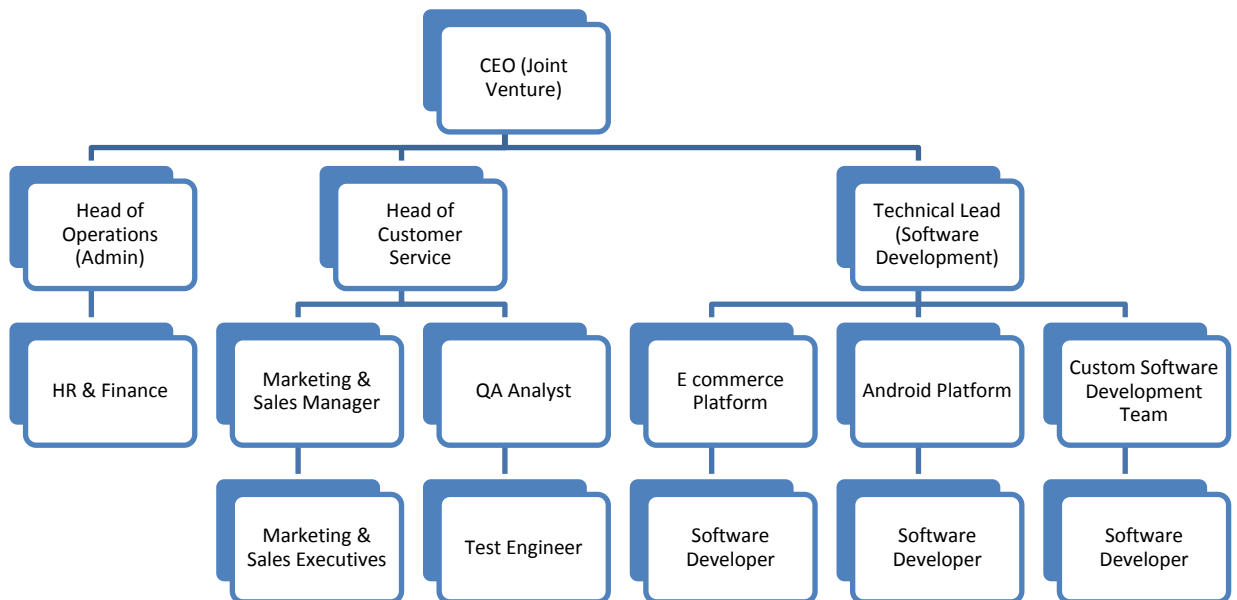


Figure 2.2: Organizational Structure of Constant MD



## CHAPTER 3

### TASKS, PROJECTS AND ACTIVITIES

#### 3.1 Daily Task and Activities

At ConstantMD I had following responsibilities, for instance

- Perform software testing as well.
- Writing Test Cases.
- Creating Test Summary Reports for tracking defects and fixes.
- Working closely with developers during TC execution to ensure proper communication of issues. (After each release)
- Publish new requirements and issues in JIRA.
- Writing daily work summary to JIRA confluence.
- Followup potential issues.
- Creating software manuals and other documents as per need.
- Deal with clients for Software Products and requirements. (If Needed)
- Review product requirements and specifications. (After each release.)
- Provide input of functional requirements and advise on design.
- Conduct software training to the clients. (If Needed)

Here below my daily task and Activities (January-March, 2017) Screenshots is given in Fig: 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7.



Figure 3.1: Daily activities summary in JIRA Confluence\_ January,2017 (Part-A)

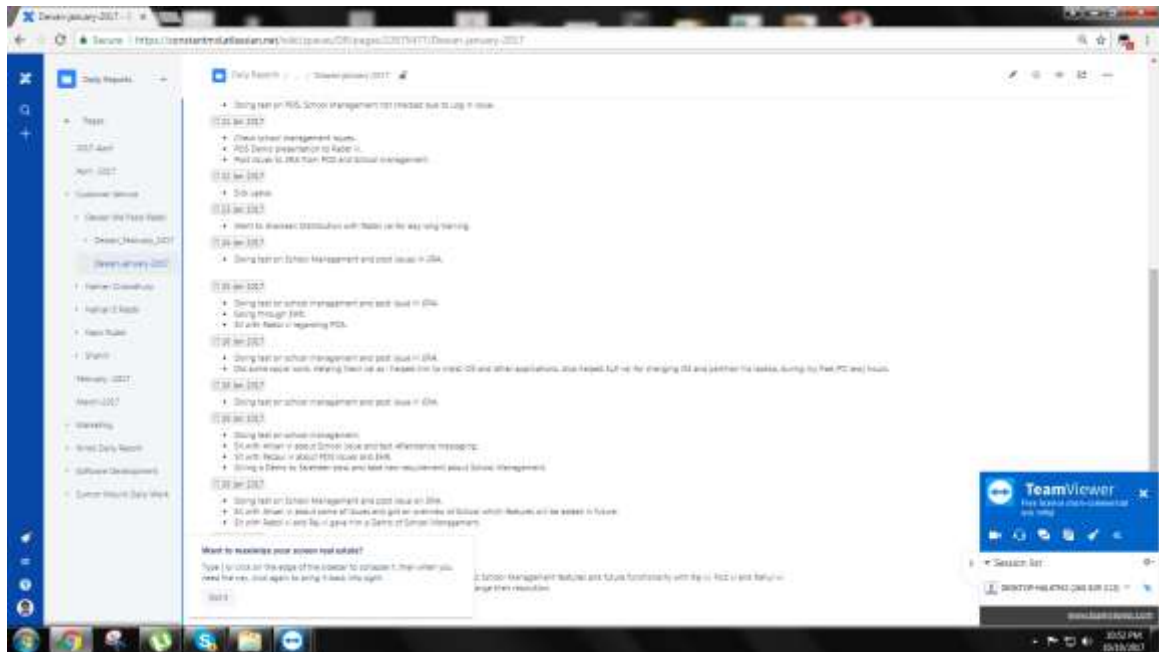


Figure 3.2: Daily activities summary in JIRA Confluence\_January,2017 (Part-B)

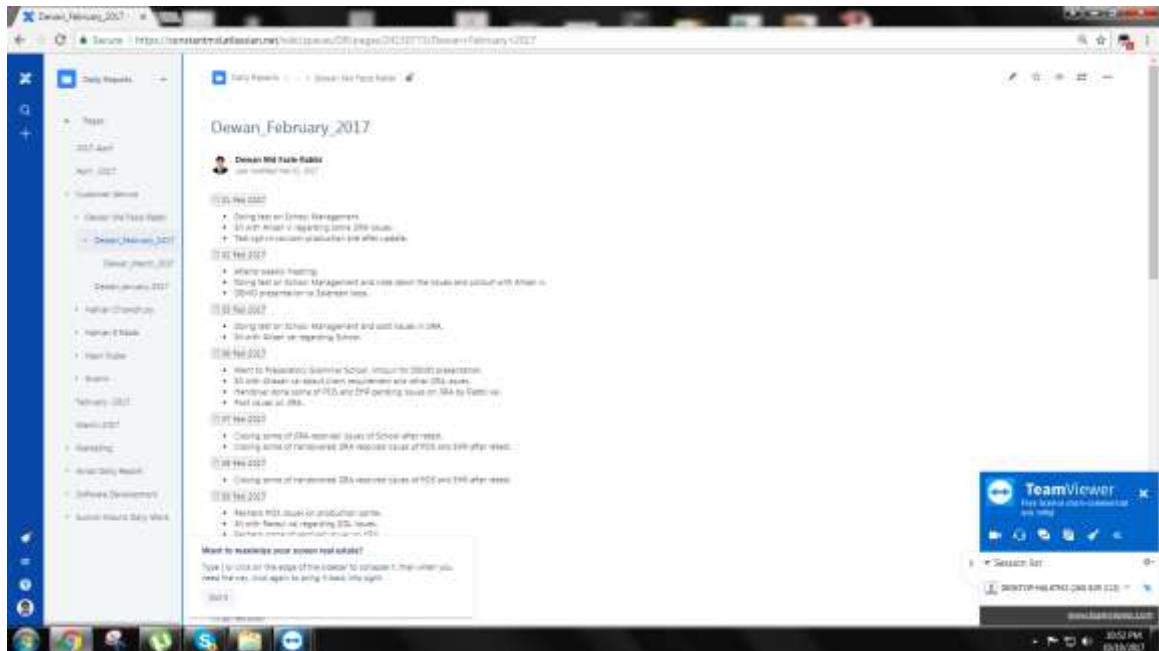


Figure 3.3: Daily activities summary in JIRA Confluence\_February,2017 (Part-A)



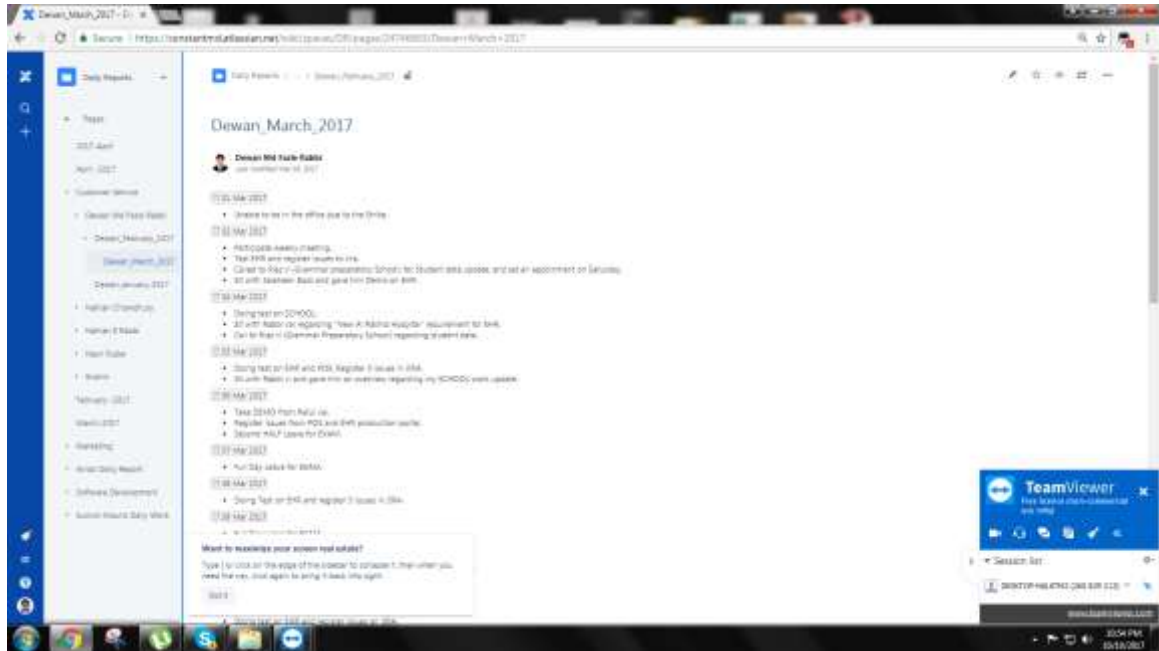


Figure 3.6: Daily activities summary in JIRA Confluence\_March,2017 (Part-A)



Figure 3.7: Daily activities summary in JIRA Confluence\_March,2017 (Part-B)

### **3.2 Events and Activities**

All events and activities of the ConstantMD aim to challenge ideas and skills, expand horizons, promote reflection and overall enhance communication to the community. In addition to these distinctive ConstantMD traditions, numerous other opportunities are provided to foster the spiritual, academic, professional, and social lives of the officary. Those events and activities I was participated in ConstantMD are given bellow.

- Attended daily and weekly meetings.
- Provided hands on approach to the Grameen Distribution Limited users. (Client)
- Dealt with clients for new software specifications, input method , UI and requirements.
- Plan, define and new UI designs, functional improvements from clients to interact with developers and advice on design.
- Understanding of professional culture and CoC.
- Understanding the professional ethics, values and beliefs.

### **3.3 Project Task and Activities**

In an official project, a task is an activity that needs to be accomplished within a defined period of time or by a deadline to work towards work-related goals. It can be consists into assignments which should also have a defined start and end deadline for completion. During my time of internship, I was concurrently involved with their live projects. I was actively participated with different types of tasks of their running projects [4].

- Created Test Cases, Test Summary Reports for tracking issues.
- Created Software specifications, manuals and other documents of POS, EHR and School Management software.
- Working closely with developers during TC execution to ensure proper communication of issues. (After each release)
- Publish new requirements and issues in JIRA.
- Follow up potential issues.
- Review product requirements and specifications. (After each release.)
- Provided input of functional requirements and advise on design.

Here below screenshots of those tasks and activities are given ( Fig: 3.8, 3.9, 3.10, 3.11, 3.12, 3.13).

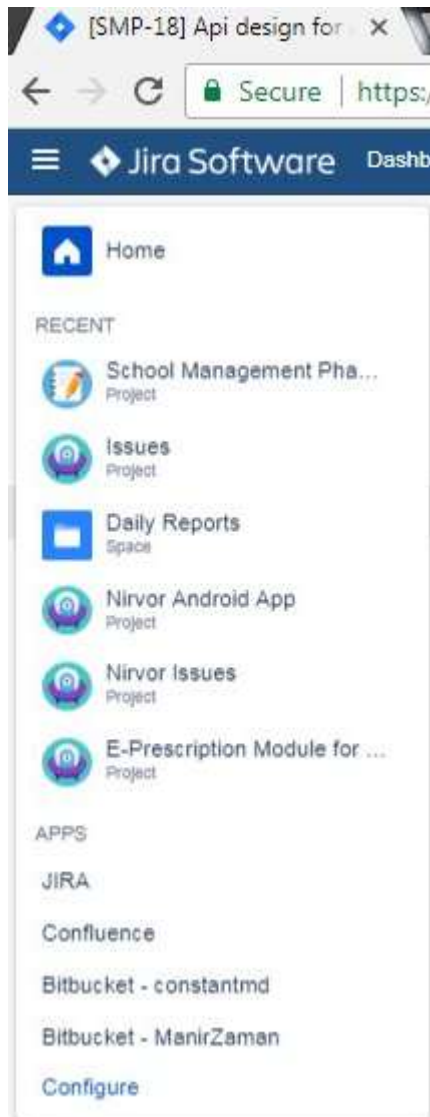


Figure 3.8: Screenshot of my projects those I have worked.

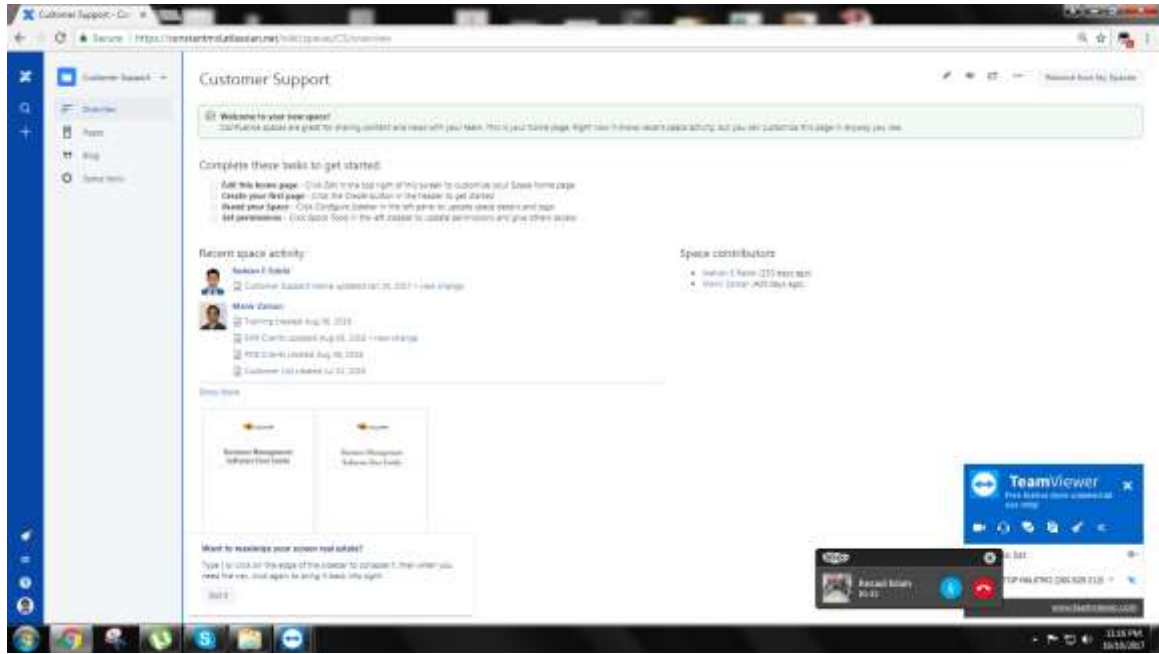


Figure 3.9: Screenshot of my created project related documents

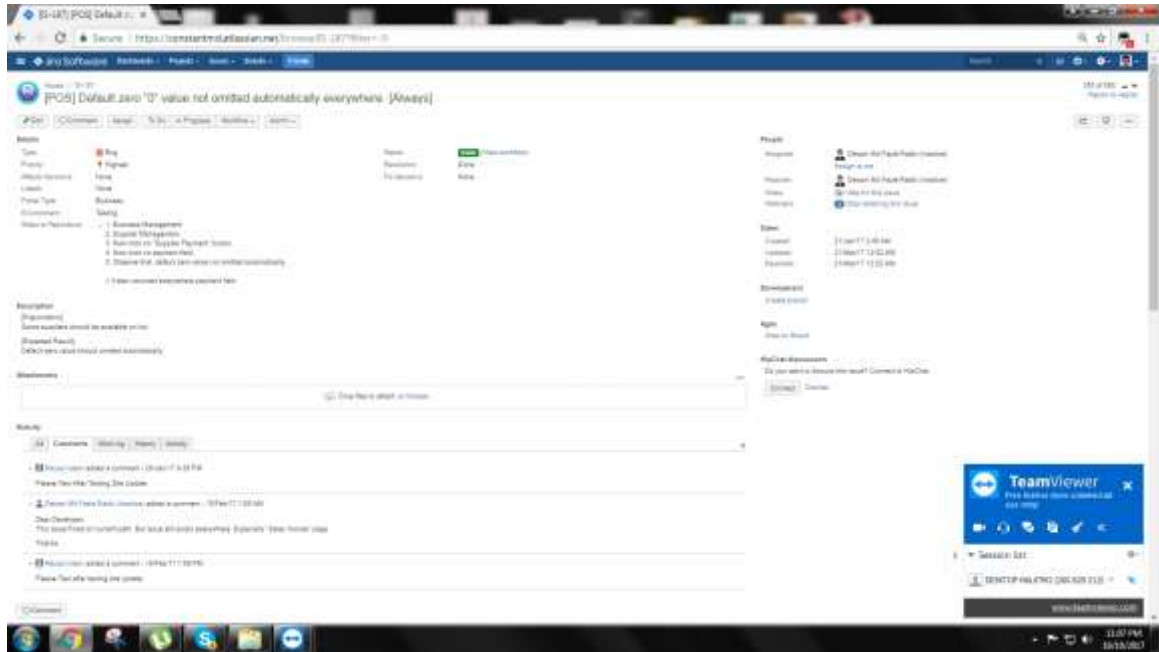


Figure 3.10: Screenshot of my reported bug sample from JIRA







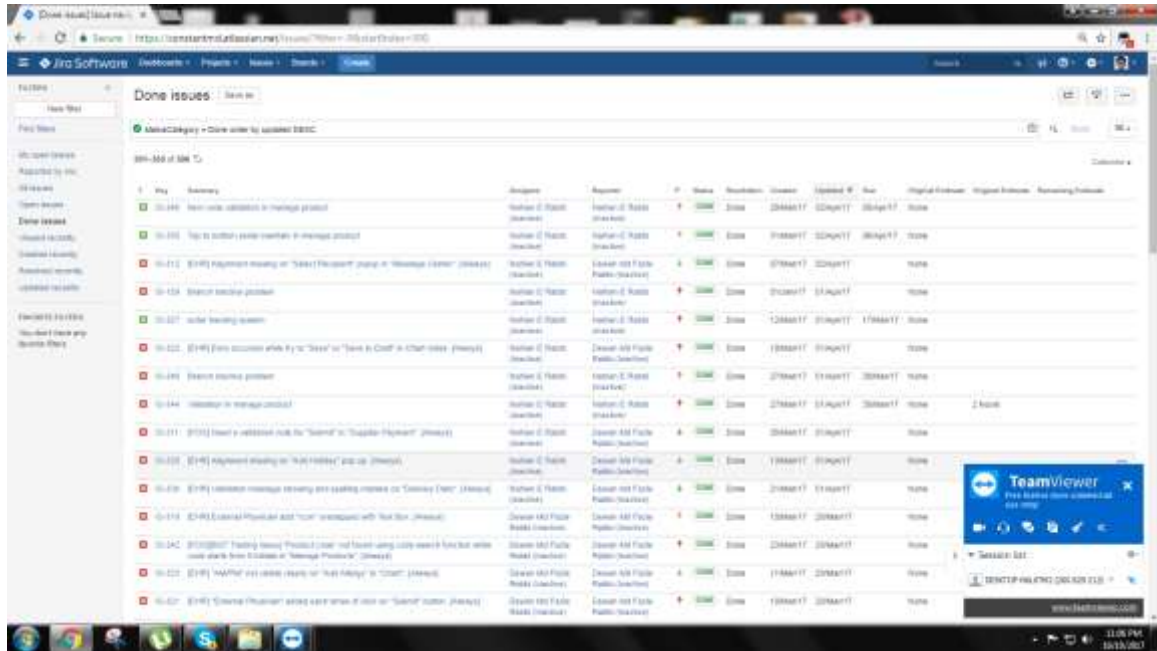


Figure 3.13: Screenshot of my project work summary from JIRA (Part-C)

### 3.4 Challenges

To perform any live projects as a QA is not so easy task. Each project has various responsibilities. In a project, SQA is the mainly responsible for leading the Quality Initiative in the organization and responsible for conducting many associated process improvement activities in the organization. During my internship I have enjoyed on communicative abilities, and gained experiences on different types of QA methodologies, worked in a cooperative teamwork environment and culture. As a result of this, I have obtained some of qualities like, now I am responsible enough and dare to take initiatives for new challenges, I have good planning, and prioritizing skills, which ensures me that I was able to complete all tasks sufficiently on daily basis.

Doing an internship at ConstantMD awakened me a far-extend to learn many skills, especially specific to the client interaction, provide them proper training and support, those are big challenges for me. That's why I believe that interacting with clients gave me an excellent communication and interpersonal skills. That's are for my future career pathway.

## CHAPTER 4

### COMPETENCIES AND SMART PLAN

#### 4.1 Competencies Earned

- Gain practical knowledge about Software Quality Assurance.
- Gain practical knowledge about SDLC in a live project platform.
- Practical knowledge about various testing tools and techniques.
- Experience with issue-tracking software ( PLM and JIRA). Gain practical knowledge about writing Test Cases, Test Summary Reports for tracking issues and fixes.
- Gain experience with investigation and reporting of operational/technical issues arising.
- To know how to deal with clients for software specification, input method , UI and requirements.
- To know how to interact with developers and advice on design.
- Plan, define and new UI designs from clients and functional improvements.
- To improve analytical and research skills.
- Perfecting interpersonal skills.
- To improve communication and administrative skills.
- Gain experience with creating software manuals and other documents.

#### 4.2 Smart Plan:

Today's life is growing fast. It is full of demand and expectation. For that there are so many opportunities to satisfy the peoples' demand. This is an overwhelming opportunity for me to work at a part of a professional technical field. The purpose of this SMART Plan is to practically accomplish the requirements for my personal career development.

In this regard I feel delighted honored to prepare a SMART Plan. In addition to serve this purpose it tries to find out how:

- To make a proper future career plan,
- To determine clients need and
- To learn to be successful in IT career.

### **4.3 Reflections**

In experiential learning through an internship, the real learning comes after the work term when I have an opportunity to think about what I saw and experienced. It is through reflecting about the actions at work and the concrete experiences that will lead me to recognizing that the experience has forged a new way of thinking about the SQA theory.

Below is a diagram of how one contemporary experiential learning theorist, David Kolb, explains how interns learn from experience. Kolb's experiential learning style theory is typically represented by a four stage learning cycle in which the learner 'touches all the bases':

#### **Concrete Experience:**

A new experience about QA process, methodologies, techniques and client interaction experiences achieved.

#### **Reflective Observation:**

The particular importance of real life inconsistencies between experience and understanding achieved.

#### **Abstract Conceptualization:**

Reflection gives rise to a new idea, or to a modification of an existing abstract concept.

#### **Active Experimentation:**

I was actively took part with their SQA team and implement some of their checklists.

To sum up. Yes, I did learn about both technical and communication sector and I had a great time. Finally this internship brought me one step closer in finding the ingredients for my perfect motivation.

## **CHAPTER 5**

### **CONCLUSION AND FUTURE CAREER**

#### **5.1 Discussion and Conclusion**

After complete my internship, I had been exposed to a QA engineer. Throughout my internship, I could understand more about the definition of this concept and prepare myself to become a responsible and innovative tester in future. Along my internship period, I realized that observation is a main element to find out the root cause of a problem. During my training, I cooperate with my colleagues and operators to determine the problems. Moreover this internship indirectly helps me to learn independently, discipline myself, be considerate/patient, self-trust, take initiatives and the ability to solve problems. Besides, my communication skill is strengthening as well when communicating with others. During my training period, I have received criticism and advice from engineers when mistakes were made. However, those advices are useful guidance for me to change myself and avoid myself making the same mistakes again. In sum, the activities that I had learned during my internship really are useful for me in future to face challenges in a working environment.

Finally, I would like to once again appreciate everyone who has made my internship a superb experience.

#### **5.2 Scope for Further Career**

In real life circumstances, finding a job opportunity could be a real challenge, especially if I don't have any hands on experience. A successful internship can help me turn an experience into a career opportunity. So, after having a successful internship my future scopes will be-

- To be a highly skilled, motivated individuals as an Executive Software QA Engineer.
- To be a hands-on technology professional geek.
- To be an UI Specialist.
- To be an SQA Analyst.
- To be a master on designing and implementing automated testing tools, SQA Testing & Methodologies, Test Plans, Cases & Processes.
- To be a mentor of formal and informal product design reviews.
- To be a successful entrepreneur.

- To be work in IT company.
- To be a Software Developer.
- To be a server administrator.
- To be a system analyst.
- To be a security engineer.
- To be a project manager
- To be able technical support.
- To be a well citizen to serve my countryman.

After completing my internship as a QA, I can work in different companies as a Test Engineer. There are a number of companies that hire software QA engineers for their project based various testing suites, agile methodologies, significant cost savings and fault-free audits, monitoring testing tools and cross-platform compatibilities in IOS, Android and Windows/Linux/Unix platforms. Also I could work independently as a QA tester on project basis and setup my own enterprise.

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