INFUSE

INTERNSHIP REPORT

Minaxi Patil

1944

Infuse Consulting   Goa University

REPORT OF INTERNSHIP DONE AT INFUSE CONSULTING

SUBMITTED BY :

Minaxi Patil

1944

UNDER THE GUIDANCE OF

Mr. Subodh Borkar
(Head of product development at useMango)

6th June 2022

INTERNSHIP CERTIFICATE

     This is to certify that Minaxi Patil, Roll. No. 1944, studying in 6th Semester Goa University MCA department, is working as an intern with us from 10th January 2022 and has successfully completed the various tasks related to feature development, bug fixing, etc. assigned to her during the internship period.

Minaxi is a self learner and needs minimal supervision to complete her tasks, She has learned the product domain knowledge and required technologies at a fast pace and has contributed well towards the team delivery.

Yours Sincerely,

Subodh Borkar,
Head of Product Development - useMango

Infuse Consulting India Private Limited
B 902, Teerth Towers, Sr. No. 28/2, Near Raj Hotel, Baner, Pune 411021
India Company Incorporated by Government of India, Ministry of Corporate Affairs under number U74999PN2018PTC179748
www.infuse.it

GOA UNIVERSITY

GOA BUSINESS SCHOOL

CERTIFICATE OF EVALUATION

This is to certify that Miss Minaxi Patil has been evaluated for the project work titled "Report of Internship done at Infuse Consulting" in partial fulfillment for the award of the degree in Master of Computer Application.

_____   _____

Examiner 1   Examiner 2

Place: Goa University   _____

Date: 23rd June 2021   Dean, Goa Business School

Acknowledgement

Interning in a company is a golden opportunity for learning and self-development specially to have so many wonderful people led me through this internship period. The internship wouldn't be complete without expressing my gratitude and appreciation to all the people who made it possible.

I would like to thank Mr. Nalin Parbhu(CEO/CTO, Infuse Consulting) for giving me the opportunity to intern at Infuse. My sincerest gratitude to Mr. Subodh Borkar (Head of product development at useMango) for being my mentor and giving me the necessary guidance and support.

I express my deepest thanks to Piyush Sharma , senior software engineer at Infuse for giving necessary advice and guidance throughout the internship. I choose this moment to acknowledge his contribution gratefully. I would also like to thank all my senior coworkers for their help and support.

I thank Mr. Ramdas Karmali (Prof. and TPO, MCA, Goa Business School, Goa University), Mr. Jarret Stevan Anthony Fernandes (Assistant Prof, MCA, Goa Business School, Goa University) and all the faculty of MCA, Goa University for their constant encouragement and support during the project work.

I would like to thank my family and friends for all the love, support and encouragement they provided me during this internship cannot be forgotten. Finally, I would like to express my gratitude towards the Infuse family who were always ready to help me and guide me in all aspects of life.

-Minaxi Patil

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Introduction

This report is a short description of my full-time on-site internship at Infuse.

I joined as an Intern at Infuse on 10th January 2022 and have been here since then. This report contains necessary information about the organization, the projects and mini projects I worked on and the other tasks and special training I completed in this internship period.

 In the chapters that will follow, I will talk about the company, the work here, the culture, etc. Then, I shall elaborate on the projects I worked on, a brief information about the projects, the modules I built and the tasks I completed in those modules.

 This report highlights my learning experience and my contributions to the organization as an intern. This will describe the knowledge that I gained by successfully completing the tasks that were assigned to me.

I'll also be talking about the tools and technologies that were used followed by my internship timeline.

I shall conclude by sharing my experience and how it has helped me to grow, both, on the personal and professional front.

Company Profile

INFUSE

About Infuse

Consulting Infuse Consulting is an international company and leverages strategic consulting partners as well as its technology partners to deliver the best solution.

Recognized as the leading provider of Test Automation and Lifecycle Transformation Services for successful, ambitious organizations, Infuse Consulting is headquartered in the UK and since 2002 has helped more than 500 businesses get the most out of their Software Delivery Teams.

Infuse Consulting works hard in the fields of Test Automation and DevOps to reliably deliver a number of clear benefits for organizations seeking assistance with their Software Delivery.

Infuse is a Gold Partner of Micro Focus and Oracle, and has a partner network including CA, Microsoft, AWS and SAP.

Infuse prides itself on its ability to provide innovative solutions, especially in test automation. They have been automating mobile testing since 2003 and developed a functional scriptless test automation tool, useMango™.

What is useMango?

- Easy to use Test Automation Tool.

- Designed so non-technical individuals can build robust automation scripts.

- Flexible framework functionality that can be adapted to match your testing ability.

- Avoids the costs of engineering your own high maintenance frameworks.

- You can use useMango to create automated tests for web and packaged applications such as Oracle and SAP.

What are the key benefits of using useMango?

- Component based test building removes the need for technical developers.

- Reduce months of manual testing into minutes.

- Fast ROI, allowing you to focus on business-critical issues.

- Increase confidence in your continuous delivery output with automated end to end testing.

- Enable Continuous Delivery by adding automated end-to-end testing of your build pipelines

About useMango

With useMango tests are quicker and more efficient, saving businesses time and money. With useMango you can build a test by selecting from 200+ pre-built components, just add data and it is ready to run. If you have problems with forms, or complicated pages useMango provides an easy solution, you can activate the useMango scanner to scan your application, with a single click, this will identify all the testable objects on any UI and create a new component. If you need to create a custom component, useMango provides you the means to do so, a software tester can complement the useMango generated scripts with custom code, using in-built frameworks made with Ruby, VBScript etc.

Other Key Features:
- Works on modern web & desktop applications.
- Codeless test tool & framework.
- Extended to support Package Applications SAP (GUI and Web Variants), Oracle E-Business, MS Dynamics, Oracle Fusion.
- Ensure application quality with fast and frequent testing.
- Test processes from end-to-end across multiple platforms and technologies.
- Business users and manual testers can automate tests without coding.
- Easily keep hundreds of tests up to date as your application changes over time.
- Expand the scope of your testing with data-driven tests.
- Meet exceptional or challenging automation requirements with simple scripted components.
- A scalable cloud-based test service which meets your growing needs.
- Get automated test outcomes directly in your continuous integration pipelines.

Product – UseMango

Overview UseMango is a windows application which has several different architectural structures, from the server to website and common libraries that contain shared code. UseMango is maintained and developed by the Infuse team and has customers worldwide.

Tools and Technologies used
- C#
- .NET framework
- WPF
- AWS
- VBS
- React

My Contributions

At the early stages of the internship, I was given a feature to code and upload on AWS as a lambda function.

The feature included the following things:
writing lambda function to get latest chrome and firefox browser version in c#
We had to make a cloud template for the same to upload it on AWS.

Once I was included in the sprint I started solving bugs in and around the application. The bugs I solved were from many repositories, mainly SERVER, APP, FRAMEWORK.

I was put in the test creation(TC) team. In the start most bugs were related to UI changes, like trimming text , a feature to change parameter width of a rectangle based on max length of parameter. Next feature was opening a project directly only if one project exists. Next few days I worked on updating framework repository changes. I designed categorisation UI/UX for component selection.

The TC team works on the useMango app so most of the work was bug fixing in the app. Like crashing of the app , or adding new functionality to the app. End of May useMango released a major new version of the app. During this time I was testing the app for various functionality.

Tools and Technologies Used

C#

C# is a general-purpose, modern and object-oriented programming language pronounced as **"C sharp"**. It was developed by Microsoft led by Anders Hejlsberg and his team within the .Net initiative and was approved by the European Computer Manufacturers Association (ECMA) and International Standard Organization(ISO)
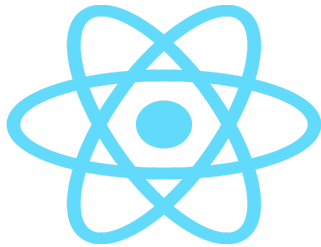
.NET Framework

The .NET Framework is a software framework developed by Microsoft that runs primarily on Microsoft Windows. It includes a large class library called Framework Class Library and provides language interoperability across several languages.

AWS

AWS Amazon Web Services is a subsidiary of Amazon providing on-demand cloud computing platforms and APIs to individuals, companies, and governments, on a metered pay-as-you-go basis.

React JS

ReactJs React is an open-source JavaScript library for building user interfaces. It is maintained by Facebook and a community of individual developers and companies.

Git

Git is a distributed version-control system for tracking changes in source code during software development. It is designed for coordinating work among programmers, but it can be used to track changes in any set of files.

MongoDB

MongoDB is a cross-platform document-oriented database program. Classified as a NoSQL database program, MongoDB uses JSON-like documents with optional schemas.

Postman

 Simplifies each step of building an API and streamline collaboration so you can create better APIs—faster.

Project timeline/Project diary

January 2022

- **Week 1:**
  - onboarding process
  - Introduction to useMango
  - Setting environment and tools for development
  - Exploring features of useMango.
  - Automated a test using the product (useMango).

- **Week 2:**
  - writing lambda function to get latest chrome and firefox browser version in c#
  - deploying the function to aws lambda and testing
  - pushing the code to github

- **Week 3:**
  - Started learning c#
  - Presentation on dependency injection.
  - Started learning react

- **Week 4:**
  - Aws cloud template
  - Setup AWS accounts and went through different AWS services.
  - Deployed and tested the lambda function.

- **Week 5:**
  - New topics specflow unit testing mocking and Nsubstitute
  - Group discussion and presentation on c# related topics

- **Week 6:**
  - Continued learning
  - WPF and mvvm

- **Week 7:**
  - Inclusion in sprint.
  - First bug - UI Test variables and parameters text trimming
  - Bug- test parameter name not fully displayed.

- **Week 8:**
  - When only one project exists, Open the project on login

- **Week 9:**
  - Implement the mechanism for showing the first user flow

- **Week 10:**
  - Component naming convention is not in a standard format in framework repository

- **Week 11:**
  - Design the categorization UI for the component selector

- **Week 12:**
  - Clicking several times on Save button while adding python dependencies causes useMango to be crashed

- **Week 13:**
  - Some components stuck in Loading condition after drag and drop components
  - Component titles update

- **Week 14:**
  - Composite component panel auto scrolls back to the top when selecting composite components

- **Week 15:**
  - Decomposing a composite having scanned component does not keep references of variables once exploded

- **Week 16:**
  - Scripted component web identifier value not visible

- **Week 17:**
  - Cannot switch scenarios while running test from test library
  - Work on PR comments

- **Week 18:**
  - "Test Data" is displayed in step parameter tooltip instead of "Test Variable"
  - Automatic engine selection not working correctly

- **Week 19:**
  - Step parameter name doesn't have maximum width
  - Ability to interact and run a test without using the pop-up for scenarios, causing useMango to crash

- **week 20**
  - Test doesn't run from designer occasionally
  - Testing useMango after python release.

My reflections/ experiences of internship

My Internship at Infuse has been a wonderful and growing experience. Facing new challenges everyday is a norm here at Infuse.

An undying hunger to learn more is something that is cultivated in employees here. Being in industry and working on a product is not something one learns but experiences.
A famous lesson from Confucius around 450 B.C. illuminates the importance of active engagement and real time experiences in learning: "TELL ME, AND I WILL FORGET. SHOW ME, AND I MAY REMEMBER. INVOLVE ME, AND I WILL UNDERSTAND." At Infuse I got a chance to work directly on code in the dev environment.

At Infuse, I never felt alone as I was provided freedom to interact, consult, seek help and guidance, etc. from any colleague.I would not have the knowledge or skills I have today if it were not for my internship experience. Overall, I'm very happy to be part of Infuse. My best of wishes to everyone here.

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