

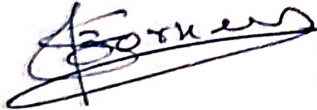
2nd June 2023

INTERNSHIP CERTIFICATE

This is to certify that **Dinesh Gunaji Gawas**, Roll No. 2128, currently pursuing the 4th Semester of the MCA program in the Computer Science and Technology discipline at Goa Business School, Goa University, has been actively engaged as an Intern with our organization since January 9th, 2023. During his internship, he has consistently displayed exemplary performance by successfully accomplishing assigned tasks and other related responsibilities.

Dinesh exhibits a strong sense of self-motivation and requires minimal supervision to effectively complete his assigned tasks. He has demonstrated remarkable aptitude for swiftly acquiring the required domain knowledge and mastering the necessary technologies. His rapid learning pace has greatly contributed to the overall productivity and successful delivery of the team.

Yours Sincerely,



Subodh Borkar,
Head of Product Development - useMango

GOA UNIVERSITY



GOA BUSINESS SCHOOL

CERTIFICATE OF EVALUATION

This is to certify that Mr. DINESH GAWAS has been evaluated for
the project work

titled **“Report of Internship done at Infuse Consulting”** in
partial fulfilment for the

award of the degree in Master of Computer Application.

Examiner 1

Examiner 2

Place: Goa University

Date: June 2023
Business School

Dean, Goa



INTERNSHIP REPORT

REPORT OF INTERNSHIP DONE AT INFUSE CONSULTING

DINESH GUNAJI GAWAS

2128



REPORT OF INTERNSHIP DONE AT INFUSE CONSULTING

Completed by
Dinesh Gunaji Gawas
RollNo 2128

for the partial fulfillment of
MCA Degree for Semester **IV**
Discipline of Computer Science and Technology,
Goa Business School,
Goa University

At
INFUSE CONSULTING PVT LTD.
Suntek Kanaka Corporate Park,
Patto centre, Panjim

Under the guidance of
MR. SUBODH BORKAR

(Head of Product Development, useMango, Infuse Consulting)

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U74999PN2018PTC179748
www.infuse.it

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Acknowledgement

I would like to express my sincere gratitude and appreciation to all the individuals who have made my internship experience with Infuse Consulting possible. Their guidance, support, and encouragement have been invaluable in my learning and professional development.

I am deeply thankful to Mr. Nalin Prabhu, the CEO/CTO of Infuse Consulting, for providing me with the opportunity to intern at their esteemed organization. His belief in my abilities and trust in my potential have been pivotal in shaping my career.

I would like to extend my sincerest thanks to Mr. Subodh Borkar, the Head of Product Development useMango at Infuse Consulting, for serving as my mentor throughout the internship. His insightful advice, guidance, and unwavering support have been instrumental in my growth and learning.

I am also grateful to Mr. Piyush Sharma, a Product Engineer at Infuse Consulting, for his willingness to take time out of his busy schedule to provide me with guidance and assistance. His expertise and support have been invaluable in carrying out my tasks during the internship.

I would like to acknowledge and thank the faculty and staff at the MCA, Goa University for their constant encouragement and support during my entire course of study.

My heartfelt appreciation goes out to my family and friends for their unwavering love, support, and encouragement throughout my internship. Their belief in me has been a constant source of motivation.

Lastly, I would like to express my gratitude to the entire Infuse family, particularly my seniors Delroy Martins, Imtiyaz Khan, Vinay Prabhu, Joyrel Vaz, Rochelle Martins, Minaxi Patil, Onkar Parshekar, and Preshly Fernandes. Their willingness to help and guide me has been invaluable. I would also like to thank my fellow interns for their support and collaboration, which has contributed to my learning and growth during this period.

I consider this internship opportunity as a significant milestone in my career development. I will strive to utilize the skills and

knowledge I have gained in the best possible way and continue to work on their improvement.

Thank you once again to everyone who has been a part of my internship journey. Your contributions have been immensely valuable, and I am truly grateful.

- DINESH GAWAS

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Introduction

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

I joined as a Team Intern at Infuse Consulting on 9th January 2023 and have been here since then. This report contains necessary information about the organization, the projects I worked on and the other tasks 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 discuss the tools and technologies that were used, as well as the timeframe for my internship. Finally, I'll talk about my experience and how it has helped me grow both personally and professionally.

Company Profile



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 several 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

Certifications Completed under Internship and Self Study



My Contributions

The early stage of the internship was about learning about the useMango product, various technologies used in the company and getting accustomed to the domain of the product. The first few weeks were a training period, where we had to learn about various topics. Task was assigned to explore the useMango app, to explore its features, write tests, execute the tests, view the results and a review session wherein all that was learnt was shared among other interns and feedback was given by the mentor.

After the introduction to useMango, the next task assigned was to identify bugs and provide suggestions for improvement. This involved actively exploring the platform, testing its various features, and documenting any issues encountered. I diligently investigated different functionalities, workflows, and user interfaces to identify any potential glitches, errors, or areas that could be enhanced. Throughout the process, I meticulously documented each bug, including steps to reproduce it and any relevant details.

Additionally, I focused on providing constructive suggestions to improve useMango. Based on my experience and understanding of the platform, I brainstormed ideas for enhancing its usability, functionality, and overall user experience. These suggestions encompassed areas such as user interface improvements, streamlining processes, introducing additional features, and enhancing the platform's performance and stability.

By actively engaging in bug identification and providing valuable suggestions for improvement, I contributed to the ongoing development and refinement of useMango. This task allowed me to not only familiarize myself with the platform in greater detail but also contribute to its continuous enhancement and optimization.

Following the bug identification and suggestion phase, the next task assigned was the training activities which are mentioned below. Following that was our ISTQB exam which is necessary for every Tester. After that we were divided into teams and were given shadow work but me and my partner were put into research and development.

We were given an important task of doing POC for an feature of the product USEMANGO, i.e we had to do POC for “selfhealing”. Self healing is even your website changes the test wont fail it will still pass which cuts down the time and cost for regression testing.

My next assignment involved working on two client project at same time which I am still doing as client projects normally are of 2-4 months. One was LSBU (London South Bank University) and Warwick University. In this role, my

responsibilities included writing test steps for Warwick University and performing regression testing for LSBU and implementing automation testing.

To begin, I collaborated with the team lead and project stakeholders to gain a comprehensive understanding of the requirements and functionalities of both the project. During the starting phase I had a bit hard time managing all technologies at once as each client project can have different techs used. But over time its all good I have got my hands on them.

I need to keep track of my work as I had to mention them and also let my seniors know about my work.

Tools and Technologies

C#



C# is a general-purpose, modern and object-oriented programming language. It was developed by Microsoft led by Anders Hejlsberg and his team within the .Net initiative.

.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 programming languages.

Ruby



Ruby is an interpreted, high-level, general-purpose programming language. It was designed and developed in the mid-1990s by Yukihiro "Matz" Matsumoto in Japan.

Python

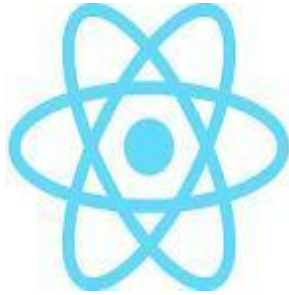


Python is an interpreted, object-oriented, high-level programming language with dynamic semantics. Its built-in data structures, combined with dynamic typing and dynamic binding, make it very attractive for Rapid Application Development, as well as for use as a scripting language.

JavaScript



JavaScript is a lightweight, interpreted, object-oriented language with first-class functions, and is best known as the scripting language for Web pages, but it's used in many non-browser environments as well.



React JS

React is a free and open-source front-end JavaScript library for building user interfaces based on UI components. It is maintained by Meta (formerly Facebook). Although React is a library, it is widely used in web development. React makes it painless to create interactive UIs.



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.



Postman

Postman is an API platform for building and using APIs. Postman simplifies each step of the API lifecycle and streamlines collaboration so you can create better APIs—faster



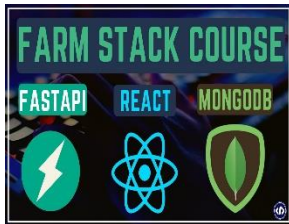
Git

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.



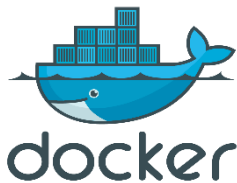
MongoDB

MongoDB is a non-relational document database that provides support for JSON-like storage. The MongoDB database has a flexible data model that enables you to store unstructured data.



Farm Stack

The FARM stack is FastAPI, React, and MongoDB. It is a simpler form of the MERN stack that can make developing apps even faster.



Docker

Docker is a software platform that allows you to build, test, and deploy applications quickly. Docker packages software into standardized units called containers that have everything the software needs to run including libraries, system tools, code, and runtime.



Selenium

Primarily it is for automating web applications for testing purposes, but is certainly not limited to just that. Boring web-based administration tasks can (and should) also be automated as well.



Jenkins

Jenkins

Jenkins is an open source continuous integration/continuous delivery and deployment (CI/CD) automation software DevOps tool written in the Java programming language. It is used to implement CI/CD workflows, called pipelines.

Project timeline/Project diary

January 2023

- Week 1
 - Formal Orientation and onboarding process.
 - Introduction to useMango.
 - Exploring features of useMango.
 - Automated a test using the product.
 - Environment and tools set up for development.
- Week 2
 - Introduction to Programming With Ruby
 - Ruby Program Exercises
 - Introduction to HTML, CSS, JS & DOM
 - Exercises
 - Introduction to Automation
 - Introduction to Selenium
 - Selenium Exercise
 - Introduction to Git & source code management
 - Exercises
 - Introduction to Containerization and Docker
 - Exercises
- Week 3
 - Workshop introduction + Sample solution
 - Workshop: Build a basic containerized testing framework for a practice website
 - Demo of work shop
 - CI & CD pipelines (with Jenkins)
 - Exercises
 - Workshop: CI & CD
 - Programming in Python
 - Exercises

February 2023

- Week 4
 - Introduction to Webservice architecture
 - Python Webservice Framework
 - Exercises
 - Workshop: Build WebService
 - Workshop: WebService Unit Testing + API Testing
- Week 5
 - Workshop:
Involves the use of entire set of skills learned so far. For a given a

problem statement expected to design, develop and test solution. This was under the guidance of team mentors.

- Workshop review + fixes

- Week 6

- Introduction to AWS Services
- Workshop project manual deployment to AWS
- Infrastructure as Code
- Workshop project automated deployment on AWS
- Teams demo project To Head of Training

MARCH 2023

- Week 7 - 8

- Preparation for ISTQB Certification Exam

- Week 9-14

- Research and development (Feature).

APRIL – MAY 2023

- Week 15 – current

- Client Project

My Reflections / Experiences of Internship

My internship at Infuse Consulting has been an amazing experience filled with new challenges every day. The company's culture promotes a relentless thirst for knowledge and encourages employees to constantly learn and grow. Working in the industry and being involved in product development has provided me with valuable learning opportunities and practical experience.

One of the great things about Infuse is that I never felt alone. I was given the freedom to interact with colleagues, seek guidance, and ask for help whenever I needed it. Throughout the internship, I gained a wealth of knowledge about software development, clean code architecture, and improving coding skills. The company's supportive environment allowed me to try out new ideas and implement them in the product, even if I wasn't familiar with them beforehand. This constant exploration and learning process made each day exciting and educational.

In conclusion, I am extremely grateful to be a part of Infuse Consulting and have the opportunity to learn and grow. I extend my best wishes to all the members of the team.

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