



# INTERNSHIP REPORT

**MAYURESH VARGAONKAR**

**1959**

# Report Of Internship Done At GYTWorkz Technologies Pvt. Ltd.

Submitted By:

**MAYURESH VARGAONKAR**

**MCA Semester VI**

**1959**

Under The Guidance Of

**Mr. Gandhar Sanzagiry**

Principal Consultant At, GYTWorkz

**GOA UNIVERSITY**



**GOA BUSINESS SCHOOL**

**Goa University Taleigao Plateau Goa- 403206**

**June 2022**

**GOA UNIVERSITY**



GOA BUSINESS SCHOOL

## ***Certificate of Evaluation***

This is to certify that **Mr. Mayuresh B. Vargaonkar** has been evaluated for the project work titled “**Report of Internship done at GYTWorkz Technologies Pvt Ltd**” undertaken at **GYTWorkz Technologies Private Limited, Hyderabad**, in partial fulfilment for the award of the degree in Master of Computer Application.

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Examiner 1

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Examiner 2

Place: **Goa University**

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Dean, Goa BusinessSchool,  
Goa University

Date: **11<sup>th</sup> June 2022**

# Acknowledgement

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First and foremost, I would like to thank the Goa Business School, Goa University for giving me the opportunity to carry out internship and acquire real-world industrial experience And, a special thanks to the teaching and non-teaching staff of the Goa Business School.

I would like to thank GYTWorkz Technologies Pvt. Ltd. for allowing me to do this internship and considering me capable to work on such projects.

I would like to express my gratitude to Mr. Bhasker Reddy Kottapally (CEO), Mr. Gandhar Sanzagiry (Principal Consultant) and Mr. Gouse Jani Mohammed (Project Manager) for giving me this opportunity to work on these projects and for all the guidance, time, patience, support and encouragement provided to me during the internship.

I am also grateful to the members of my team especially Mr. Harshit Raj (SDE-1) and Mr. Akhil Akula (Team Lead) for all the help and encouragement which helped me in these projects.

I would like to express my special gratitude and thanks to GYTWorkz Technologies employees for giving me such attention and time.

I have not mentioned some names of the teammates who have helped me during this internship but the absence of their names does not show the absence of my gratitude for their support.

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## DISCLAIMER

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THE INFORMATION CONTAINED IN THIS REPORT IS THE WORK DONE BY THE AUTHOR AS PART OF THE INDUSTRIAL TRAINING PROGRAMME OF MCA, GOA UNIVERSITY. THE DATA AND SCREENSHOTS ADDED IN THIS REPORT ARE SOLELY FOR THE REFERENCE PURPOSE ONLY. IT DOES NOT IN ANY WAY REPRESENT THE ACTUAL DATA USED FOR THE PROJECTS. CLIENT NAMES, CLASS DIAGRAM, ER- DIAGRAM AND WORK FLOW DETAILS ARE NOT GIVEN IN THE REPORT AS IT IS AGAINST THE COMPANY'S PRIVACY POLICY.

# INTRODUCTION

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This report is a short description of my full-time internship at GYTWorkz.

I joined as an Intern at GYTWorkz on 10th January 2022 and have been here since then. This report contains necessary information about the organization, the projects I worked on and the other tasks and special trainings 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, and the tasks I completed.

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

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GYTworkz is a product engineering company of a committed team with one strong agenda : Design and develop for the cloud. We clearly understand : "Cloud is not a location, It is a Method". Started in 2019, we have strongly poised to partner with startup founders to make their ideas a reality. GYTWorkz has thus far helped multiple startup founders visualise their ideas. We have been successfully playing the role of a tech co-founder for various startups. Startups we are associated with : FIFI, ReFrame ( Engage ), Intro, IOTRL Beyond startups, GYTWorkz has delivered solutions in Application Engineering ( NodeJS, Java), Mobile App Development (Android, IOS, React Native, Flutter), Data Platforms ( Pipelines, Analytics, BI) for global companies successfully.

## Website

<http://gytworkz.com>

## Industry

IT Services and IT Consulting

## Headquarters

Hyderabad, Telangana

## Founded

2019

## Specialties

AWS, Azure, Cloud, Angular, React, React Native, Flutter, IoT, vue.js, cloud performance optimisation, and cloud cost optimisation



# Project – Itential

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Itential simplifies and automates the journey toward the Modern Network. Our Intelligent Network Automation solution bridges the gap between IT and networking teams, enabling users to easily build, execute and visualize Network Intelligent Workflows. Our low-code environment provides a vendor agnostic, turnkey solution, connecting all your orchestrators and controllers with your IT Service Management applications and configuration tools. Itential's solutions leverage the latest thinking, open standards, open architectures, partners and best practices to drive network operations and maximize the impact of automation. Companies worldwide from Fortune 500 telecommunications and financial services companies to enterprises of all sizes, trust Itential to mitigate risk, automate operations, accelerate change and fuel their journey toward the Modern Network.

## Key Features

### Admin Essentials:

This is used to view, configure and modify all admin level properties across the Itential Platform, basically each feature is managed by an authorization settings.

If a user is not authorized for a specific feature, it will not available in the left panel.

### Design

In this section automation can be built and tested using Automation Studio.

**Automation Studio** is all-in-one application suite used to create, edit workflows and manage such things as automation.

### Operation Manger

We can view number of jobs and task that were run and how long each took to execute

### Configuration Manager

It's a multifunctional interface for viewing devices, managing groups of devices, performing device backups, and comparing backup configuration.

### Legacy and Custom

This is where you will find some of the legacy features and custom apps that you may have loaded

## Tools and Technologies used

- YANG
- CISCO NSO
- NED packages
- JAVA
- CDB
- React
- Node JS

## My Contribution in Itential Project

My Role was as a Backend developer where usually the work was related to bug fixing, regression testing and developing service models.

### Created Service models for:

#### Case 1

If leafref has namespace and is relative, the drop down menu should populate with the items found in CDB

#### Case 2a

If 'when' path has namespace and is relative, element should only be visible (and output a value) when the data in CDB matches the when expression

#### Case 2b

If 'when' path has namespace and is relative with default value. It should query backed to get the data from CDB, show the dropdown and conditionally show the element.

#### Case 3a

if leafref has no namespace and is relative with default value. It should show the reference node value into the leafB leafref node and validate the value with the reference node

#### Case 3b

if leafref has no namespace and is relative with no default value. It should show the reference node value into the leafB leafref node and validate the value with the reference node

#### Case 4a

if 'when' path has no namespace and is relative. It should show the leaf capital1 only when the leaf country1 has some value in it.

#### **Case 4b**

if 'when' path has no namespace and is relative and not statement. It should show the leaf capital only when the leaf country is empty.

#### **Did regression testing for all these scenarios:**

- If reference node is filled then only current node will be visible
- If the value of reference node is equal to when statement then only current node should not be visible
- If the value of reference node is equal to when statement then only current node should not be visible
- If the value of reference node is equal to when statement then only current node will be visible
- If the value of reference node is equal to when statement then only current node will be visible
- If reference node is empty then only current node will be visible
- If reference node is empty then only current node will be visible
- If the value of reference node is equal to when statement then only current node should not be visible
- If the value of reference node is equal to when statement then only current node will be visible
- If reference node is filled then only current node will be visible

# Project- Reframe Engage Check-in solution\_\_\_\_\_

The Reframe Engage Check-in solution helps schools monitor and manage their student's arrival more efficiently while providing real-time custom SMS text Notifications to parents and guardians. Each student attendance record is accessible, with parent contact information that can be updated at any time.

## Tools and Technologies used

### As per my role in project

- AWS
- CloudWatch
- CloudFormation
- Pinpoint
- Alarms
- API Gateway
- Lambda Functions

## My Contribution in Reframe Engage Check-in solution

Data Monitoring/Analysis with the help of AWS services such as CloudWatch Dashboards, Lambda functions, Alarms, pinpoint, API Gateway, CFT's etc.

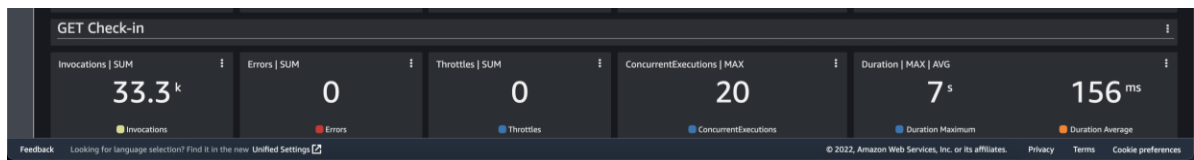
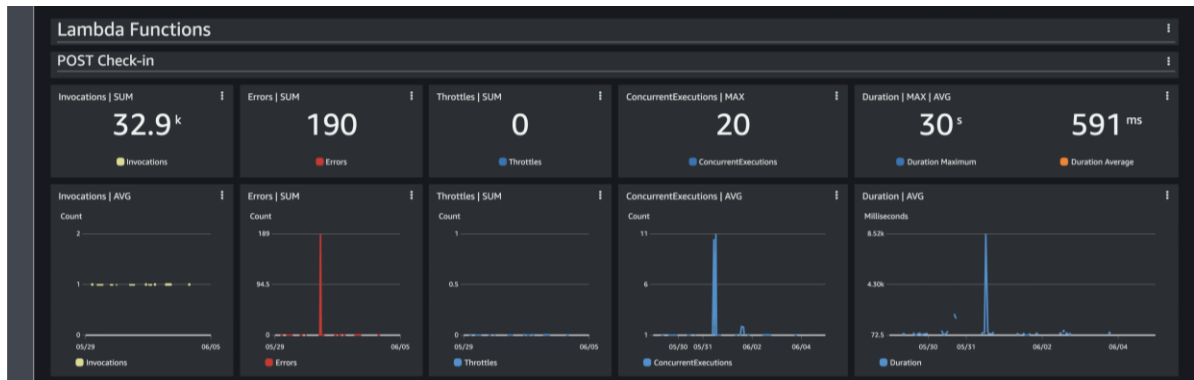
Created Dashboards, CFT templates, and set Alarms for these lambda functions:

GET Checkin

POST Checkin

Login Checkin

Get customer data



Can't show all the graphs due to NDA.

# Tools and Technologies Used\_\_\_\_\_

## **YANG**

YANG is a data modelling language used to model configuration and state data manipulated by the Network Configuration Protocol (NETCONF), NETCONF remote procedure calls, and NETCONF notifications.

## **CISCO NSO**



Cisco® Network Services Orchestrator (NSO) enabled by Tail-f® is an industry-leading orchestration platform for hybrid networks. It provides comprehensive lifecycle service automation to enable you to design and deliver high-quality services faster and more easily.



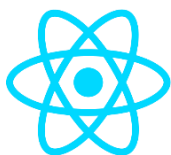
## **Node.js**

Node.js is an open-source, cross-platform, JavaScript runtime environment that executes JavaScript code outside a web browser.



## **npm**

npm is a package manager for the JavaScript programming language. It is the default package manager for the JavaScript runtime environment Node.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.



### **Postman**

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



### **Jira**

Jira is a proprietary issue tracking product developed by Atlassian that allows bug tracking and agile project management.



### **DBeaver**

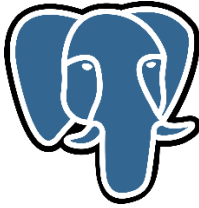
DBeaver is a SQL client software application and a database administration tool. For relational databases it uses the JDBC application programming interface (API) to interact with databases via a JDBC driver. For other databases (NoSQL) it uses proprietary database drivers.



Sequelize

### **Sequelize**

Sequelize is an open-source Node.js module that enables JavaScript developers to work with relational databases more easily, including but limited to MySQL, Postgres.



### PostgreSQL

PostgreSQL is used as the primary data store or data warehouse for many web, mobile, geospatial, and analytics applications.



### AWS

It's a Global cloud platform which allows you to host and manage services on net.



### HL7

HL7® v2.x is the HL7 specification family that is the most commonly used. The standard was created for data exchange between health systems independently of the technology each system would use. As a fact, HL7 specifies the exchanged data format only and doesn't determine how data will be transported or how it should be secured.



# Project timeline/Project diary\_\_\_\_\_

## Week 1

Learning Node Js

## Week 2

Learning PostgreSQL

## Week 3

Learning Sequelize ORM

## Week 4

Learning Passport OAuth2.0,  
Learning Google API for login

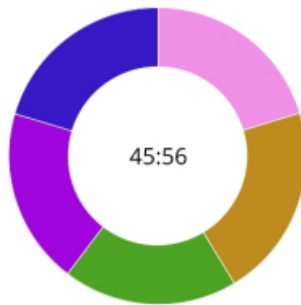
## Week 5

Basic Understanding of AWS

## Week 6

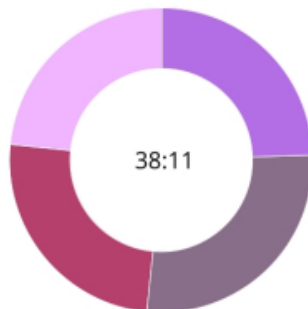
Final Project On boarding

## Week 7



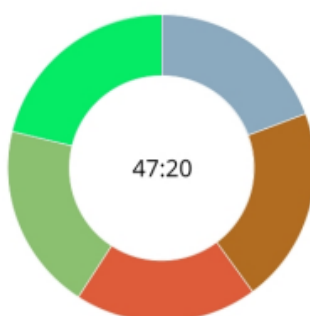
• Troubleshoot errors in loading NSO netsims. and Installed IAP local env	9:24	20.46%
• Completed Chapters 1,2 & 3 from getting started guide and started with chapter 4	8:48	19.16%
• Completed few courses from Itential Academy	8:44	19.01%
• Complete with NSO & NED installation and started with getting started guide	9:40	21.05%
• Worked on How to Install NSO locally	9:20	20.31%

## Week 8



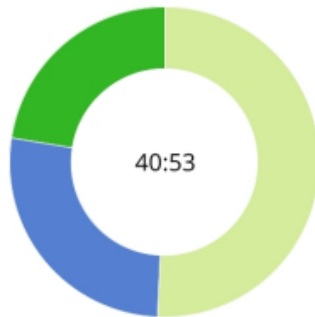
• Worked on creating Jst Tokens	8:56	23.39%
• Completed chap 4	9:35	25.09%
• Read Documentation on rest call and jst token and how to implement in IAP	10:19	27.03%
• Learning how to create workflows in IAP	9:21	24.49%

## Week 9



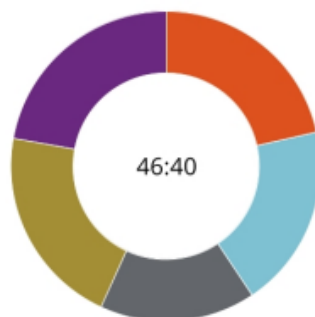
• Completed Chap 1 & 2 from NSO development guide	10:02	21.19%
• Worked on smodel assignment (Task 1) and started with chap 14	9:19	19.69%
• Created workflows & Jst tokens to know more about it	9:07	19.27%
• completed 3rd chapter dev guide and Started working on smodel practice assignment	9:44	20.56%
• worked with Harshit on the connection ticket. and Completed chapter 1-2	9:08	19.29%

## Week 10



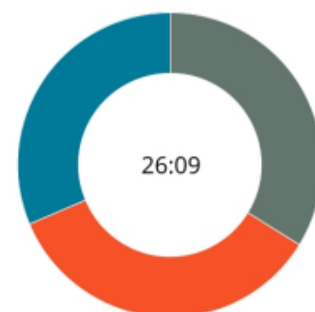
● Completed chap 14	9:13	22.55%
● Started with YANG Documentation	10:57	26.78%
● Reading chap 14	20:43	50.68%

## Week 11



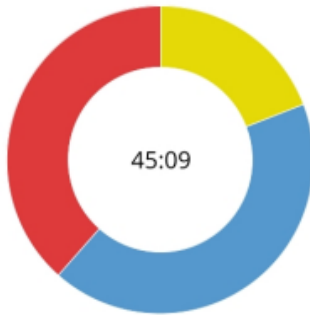
● Regression testing on form builder to check if IAP supports basic data types	10:20	22.14%
● Regression testing on form builder to check if IAP supports nested lists and container	9:47	20.96%
● Regression testing on form builder to check if IAP supports import statement and augment	7:36	16.29%
● Regression testing on form builder to check if IAP supports Default values and leafrefs	8:56	19.14%
● Regression testing on form builder to check if IAP supports When clause	10:01	21.47%

## Week 13



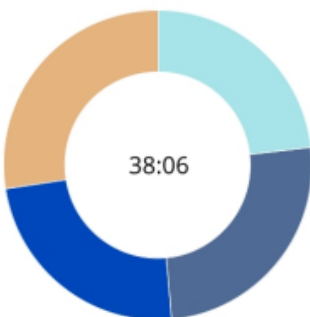
● Regression testing to check if IAP supports multiple ncs packages	8:12	31.36%
● Regression testing to check if IAP supports prefilled values both in form definition and in task input.	9:07	34.88%
● Regression testing to check if IAP supports Adding/Removing new/existing element in yang model	8:50	33.77%

## Week 14



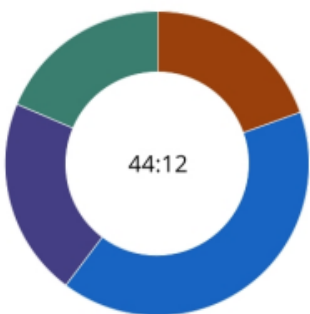
Regression testing on Xpath Existence checks PH-117656 ticket	17:23	38.49%
Working on Xpath Existence checks PH-117656 ticket	19:07	42.35%
Regression testing to check if IAP supports multiple ncs packages	8:39	19.16%

## Week 15



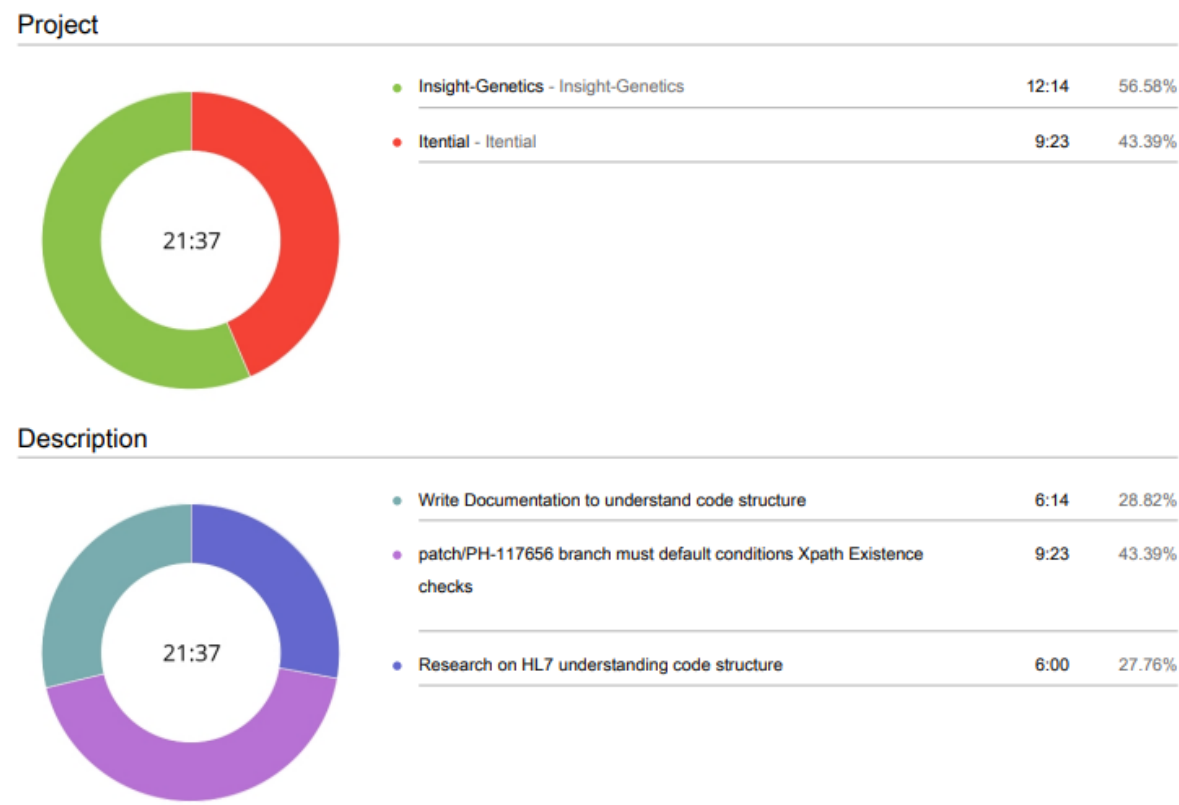
Regression testing on (Master branch when conditions) Xpath Existence checks PH-117656 ticket	10:29	27.51%
Master branch when conditions Xpath Existence checks	9:07	23.94%
Regression testing on (Master branch) Xpath Existence checks PH-117656 ticket	9:40	25.38%

## Week 16



patch/PH-117656 branch must default conditions Xpath Existence checks	8:15	18.67%
patch/PH-117656 branch must conditions Xpath Existence checks	9:20	21.11%
Master branch must conditions Xpath Existence checks	17:59	40.68%
patch/PH-117656 branch when conditions Xpath Existence checks	8:38	19.52%

Week 17



Week 18

Understanding Working Project

Week 19

Understanding Working Project

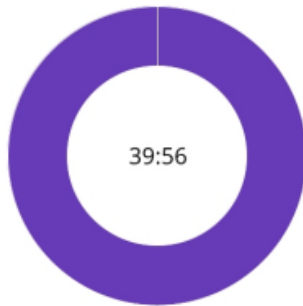
Week 20

Understanding Working Project

Worked on documenting code structure

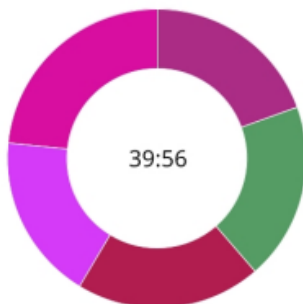
## Week 21

### Project



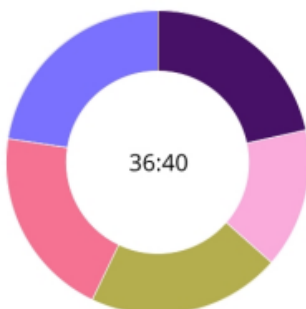
• Virtual Lobby - VL	39:56	99.99%
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### Description



• Completed ApiGateway Dashboards, 2 lambda function Dashboards and applied filtered to it , research on CloudFormation	9:20	23.36%
• Create Dashboard for GET, POST lambda Functions and did research to transfer Pinpoint Dashboard to Cloud Watch Dashboard	7:10	17.95%
• Research on Pinpoint , Lambda , CloudWatch Dashboards	8:01	20.08%
• Research on CloudFormation, Alarms	7:40	19.21%
• Research on AWS, SQS	7:45	19.41%

## Week 22



• Completed All Lambda Function Dashboards and Api GateWay Dashboard	8:15	22.50%
• Research Cloud Formation	7:30	20.45%
• Completed all CFTs for Dashboards and Alarms	7:33	20.59%
• CloudFormation Template using CloudWatch Dashboard	5:27	14.86%
• Set Up Alarms for all the DashBoards	7:55	21.60%

# My reflections/ experiences of internship\_\_\_\_\_

My Internship at GYTWorkz has been a wonderful and growing experience.

Facing newer challenges every day is a norm here at GYTWorkz.

An un-dying hunger to learn more is something that is cultivated in employees here. Being in industry and working on live projects is not something one learns but experiences.

At GYTWorkz, I was never restricted to just my project team. I was provided freedom to interact, consult seek help and guidance, etc. from any colleague.



May 31, 2022

## CERTIFICATE

This is to certify that Mr. Mayuresh Vargaonkar (Roll No: 1959), a final year student of Goa University has successfully completed the project "AUTOMATION PLATFORM and CUSTOMER RELATIONSHIP MANAGEMENT PLATFORM - Backend development" at GYTWorkz Technologies Pvt. Ltd, during his internship from 10-Jan-22 to 31-May-22.

During the internship, Mayuresh was a quick learner. He showed a lot of potential for problem solving and responded positively to challenges. He demonstrated readiness to learn and was always open to widen his skillset.

We at GYTWorkz wish him a successful career ahead!

A handwritten signature in black ink, appearing to read 'Jashwanth'.

Yours sincerely  
GYTWorkz Technologies Pvt Ltd

GYTWorkz Technologies Pvt. Ltd, The Platina, Block-A, A-303,  
Gachibowli Rd, Gachibowli, Hyderabad, Telangana-500032  
Office: 7989252240, Website: [www.gytworkz.com](http://www.gytworkz.com)

# References

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## **YANG**

<https://datatracker.ietf.org/doc/html/rfc6020>

## **NodeJs**

<https://www.udemy.com/course/node-js-api-tutorial/>

## **HL7**

<https://hl7-definition.caristix.com/v2/>

## **Sequelize ORM**

<https://sequelize.org/docs/v6/getting-started/>

## **PostgresSQL**

<https://www.youtube.com/watch?v=qw--VYLpxG4>