

Industrial Internship Report on

"Quiz Game in Python"

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Executive Summary

This report provides details of the Industrial Internship provided by upskill Campus and The IoT Academy in collaboration with Industrial Partner UniConverge Technologies Pvt Ltd (UCT).

This internship was focused on a project/problem statement provided by UCT. We had to finish the project including the report in 6 weeks' time.

My project was to prepare a quiz game in python language which shows answers to students and also saves their score.

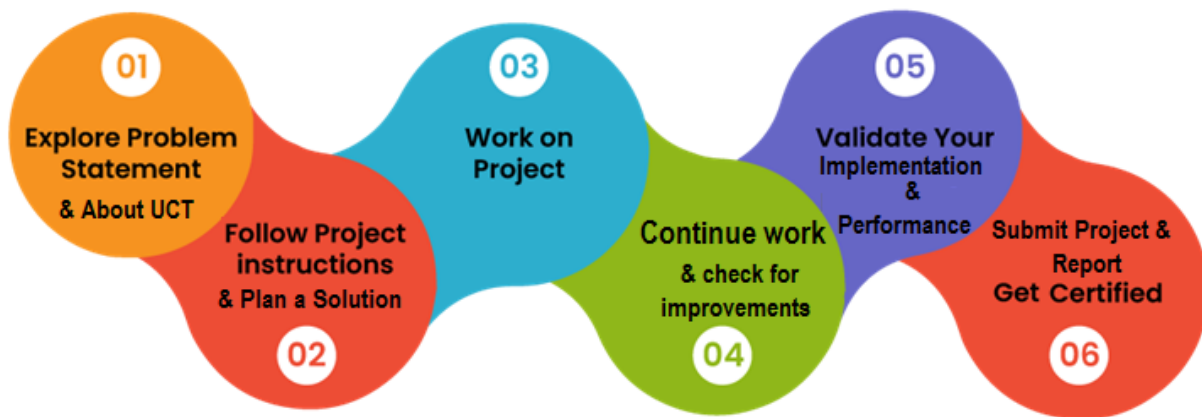
This internship gave me a very good opportunity to get exposure to Industrial problems and design/implement solution for that. It was an overall great experience to have this internship.

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1 Preface

My whole 6 week working with UCT was a great experience in all. It was a great opportunity for me being an absolute beginner in this field I have created a very small project as much I could from my learning through the great modules and lectures provided here for the advancement of students. I do hope to undergo many more courses from this platform in future days and will also recommend my friends as well to explore this platform.



As a beginner in this field most of my learning was from the video lectures that are available on the platform and it was great to see such experienced teacher's available here. The lectures were all available in a recorded format which was the best part according to the availability of each. All in all I would like to say that as a beginner one should definitely open up to more experiences and take up internships as and when you have time.

2 Introduction

2.1 About UniConverge Technologies Pvt Ltd

A company established in 2013 and working in Digital Transformation domain and providing Industrial solutions with prime focus on sustainability and RoI.

For developing its products and solutions it is leveraging various **Cutting Edge Technologies** e.g. **Internet of Things (IoT), Cyber Security, Cloud computing (AWS, Azure), Machine Learning, Communication Technologies (4G/5G/LoRaWAN), Java Full Stack, Python, Front end** etc.



i. UCT IoT Platform ()

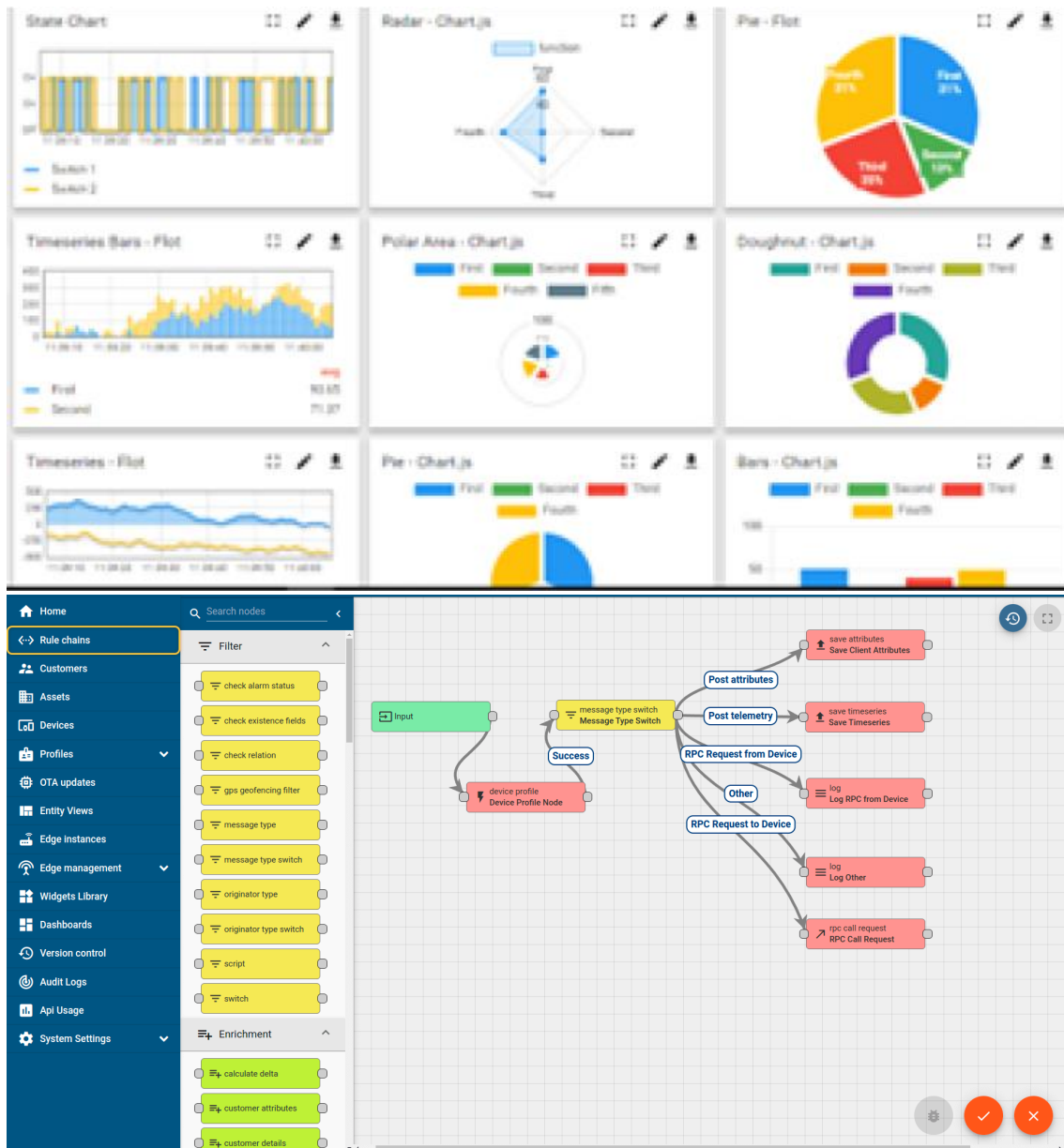
UCT Insight is an IOT platform designed for quick deployment of IOT applications on the same time providing valuable “insight” for your process/business. It has been built in Java for backend and ReactJS for Front end. It has support for MySQL and various NoSql Databases.

- It enables device connectivity via industry standard IoT protocols - MQTT, CoAP, HTTP, Modbus TCP, OPC UA

- It supports both cloud and on-premises deployments.

It has features to

- Build Your own dashboard
- Analytics and Reporting
- Alert and Notification
- Integration with third party application(Power BI, SAP, ERP)
- Rule Engine



FACTORY WATCH

ii. Smart Factory Platform ()

Factory watch is a platform for smart factory needs.

It provides Users/ Factory

- with a scalable solution for their Production and asset monitoring
- OEE and predictive maintenance solution scaling up to digital twin for your assets.
- to unleash the true potential of the data that their machines are generating and helps to identify the KPIs and also improve them.
- A modular architecture that allows users to choose the service that they want to start and then can scale to more complex solutions as per their demands.

Its unique SaaS model helps users to save time, cost and money.



Machine	Operator	Work Order ID	Job ID	Job Performance	Job Progress		Output		Rejection	Time (mins)				Job Status	End Customer
					Start Time	End Time	Planned	Actual		Setup	Pred	Downtime	Idle		
CNC_S7_81	Operator 1	WO0405200001	4168	58%	10:30 AM		55	41	0	80	215	0	45	In Progress	i
CNC_S7_81	Operator 1	WO0405200001	4168	58%	10:30 AM		55	41	0	80	215	0	45	In Progress	i



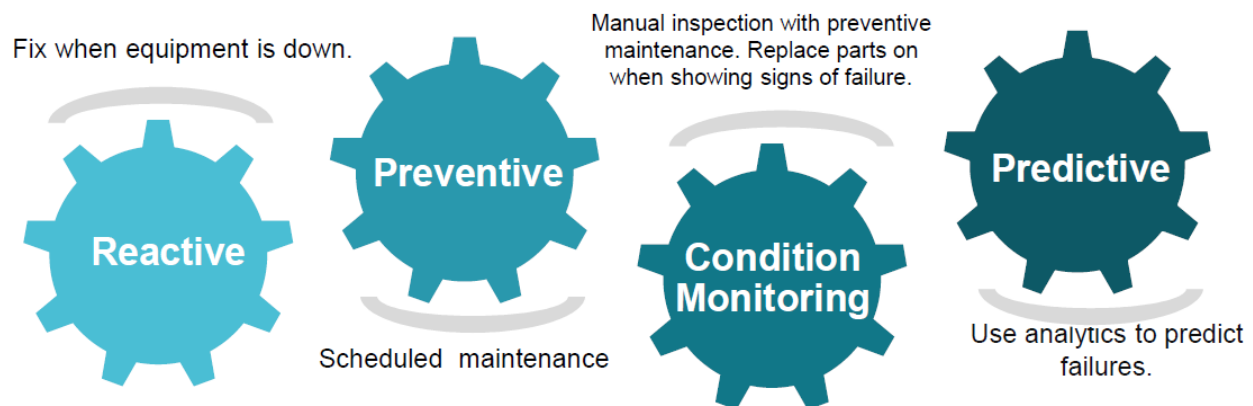


iii. LoRaWAN based Solution

UCT is one of the early adopters of LoRAWAN teschnology and providing solution in Agritech, Smart cities, Industrial Monitoring, Smart Street Light, Smart Water/ Gas/ Electricity metering solutions etc.

iv. Predictive Maintenance

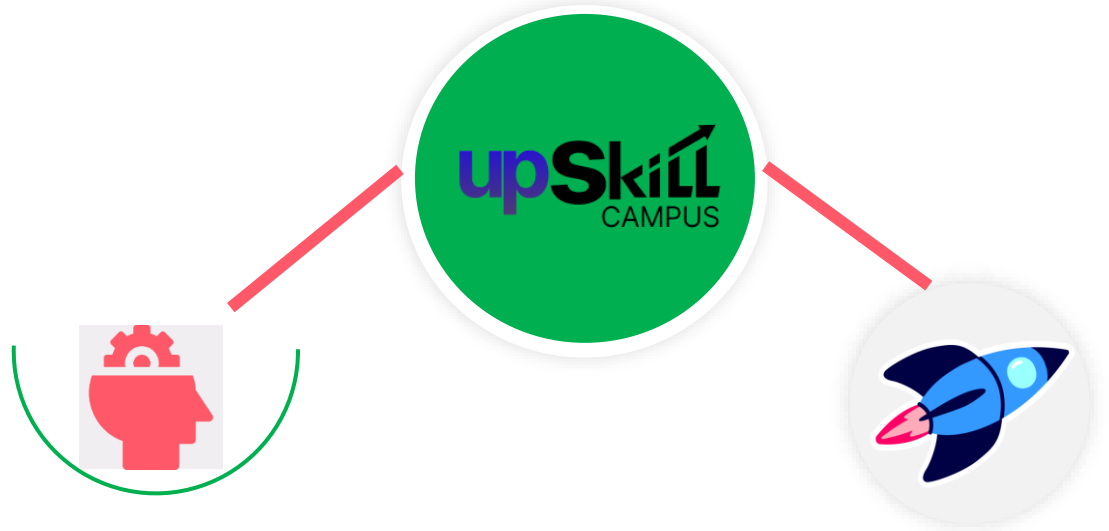
UCT is providing Industrial Machine health monitoring and Predictive maintenance solution leveraging Embedded system, Industrial IoT and Machine Learning Technologies by finding Remaining useful life time of various Machines used in production process.



2.2 About upskill Campus (USC)

upskill Campus along with The IoT Academy and in association with Uniconverge technologies has facilitated the smooth execution of the complete internship process.

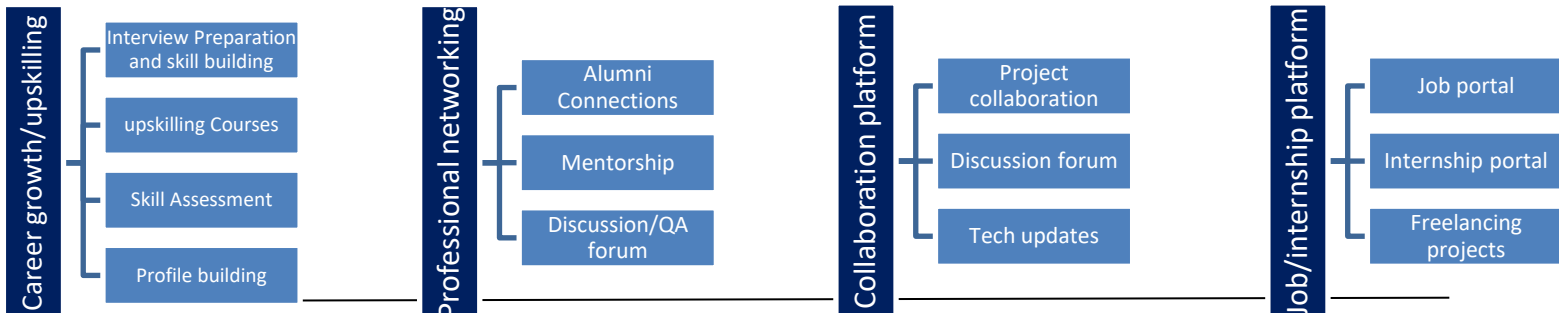
USC is a career development platform that delivers **personalized executive coaching** in a more affordable, scalable and measurable way.



Seeing need of upskilling in self paced manner along-with additional support services e.g. Internship, projects, interaction with Industry experts, Career growth Services

upSkill Campus aiming to upskill 1 million learners in next 5 year

<https://www.upskillcampus.com/>



2.3 The IoT Academy

The IoT academy is EdTech Division of UCT that is running long executive certification programs in collaboration with EICT Academy, IITK, IITR and IITG in multiple domains.

2.4 Objectives of this Internship program

The objective for this internship program was to

- get practical experience of working in the industry.
- to solve real world problems.
- to have improved job prospects.
- to have Improved understanding of our field and its applications.
- to have Personal growth like better communication and problem solving.

2.5 Reference

[1] Youtube Channel – Bro Code

[2] Chatgpt

2.6 Glossary

Terms	Acronym

3 Problem Statement

First of all it was great to see that for the project preparation we were given an option to choose our project problem from variety of options rather than being forced to perform a single project. The problem I chose to work on was to prepare a quiz game in python language which would be able to take input from the users or the players and then test their knowledge on various areas for example I have added the questions based on python language itself. Similarly the quiz stores users scores and presents the final percentage of user at the end after attempting all the questions.

4 Existing and Proposed solution

The proposed solution I have added again being a very beginner in this field is very simple by creating a game that takes input from users and one by one presents questions in front of the users and then at the end it presents the final score of all the attempted questions to the users. The game also allows the players to make guesses from the 4 given multiple choices of each question and the player can make a guess from the 4 options and at the end it will be compared.

4.1 Code submission (Github link)

<https://github.com/keshavkapur/upskillcampus/blob/main/QuizGame.py>

4.2 Report submission (Github link) : first make placeholder, copy the link.

<https://github.com/keshavkapur/upskillcampus>

5 Proposed Design/ Model

Given more details about design flow of your solution. This is applicable for all domains. DS/ML Students can cover it after they have their algorithm implementation. There is always a start, intermediate stages and then final outcome.

5.1 High Level Diagram (if applicable)

NONE

Figure 1: HIGH LEVEL DIAGRAM OF THE SYSTEM

5.2 Low Level Diagram (if applicable)

NONE

5.3 Interfaces (if applicable)

NONE

6 Performance Test

My project is a basic quiz game however I feel that it could be used as a fun game in various areas to test knowledge about various topics as it provides users with options as well a chance to make a random guess for each question.

6.1 Test Plan/ Test Cases

6.2 Test Procedure

6.3 Performance Outcome

7 My learnings

As a beginner it was great to work with upskill campus it was a great opportunity for me to learn a lot about the field of computer application and about python language. While making the project I did learn about the practical implications of the work until now I had only done the theory part in college and the video lectures provided were great as well. The test that you have in between the modules were very encouraging and created an enthusiastic approach to learn more each and every time with each module.

8 Future work scope

I was not satisfied with my project because being a beginner I was not able to contribute much to the project as I was expected to and ended up creating a basic project. However I do hope to continue my learning with upskill campus and through other modes as well and learn better about this field and in my next attempt I will give my level best to create a better project.