





"Project Name- File Organiser" Prepared by [Prashant Tomar]

Executive Summary

This report presents the details of my industrial internship project "File Organiser", carried out under the guidance of Upskill Campus and UniConverge Technologies Pvt. Ltd. The project aimed to address the common problem of unorganised files in a computer system, which often leads to inefficiency and wasted time in locating important documents.

The **File Organiser** was developed using Python, leveraging modules such as os and shutil to automatically categorise files into appropriate folders based on their type or extension. The project provided me with valuable exposure to real-world software development practices, including problem analysis, design, coding, and testing. Through this internship, I gained hands-on experience in automation, improved my coding and debugging skills, and learned how to design solutions that enhance productivity and efficiency. This experience has been a significant step in strengthening my technical and problem-solving abilities, preparing me for future professional challenges.



















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Preface

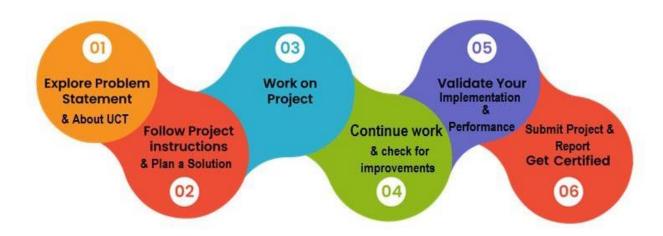
Summary of the whole 6 weeks' work.

About need of relevant Internship in career development.

Brief about Your project/problem statement.

Opportunity given by USC/UCT.

How Program was planned



my Learning and overall experience is good.

Thank to all my teachers and my batch mates, who have helped me directly or indirectly.

Your message to your juniors and peers.







Introduction

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 Rol.

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.



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.

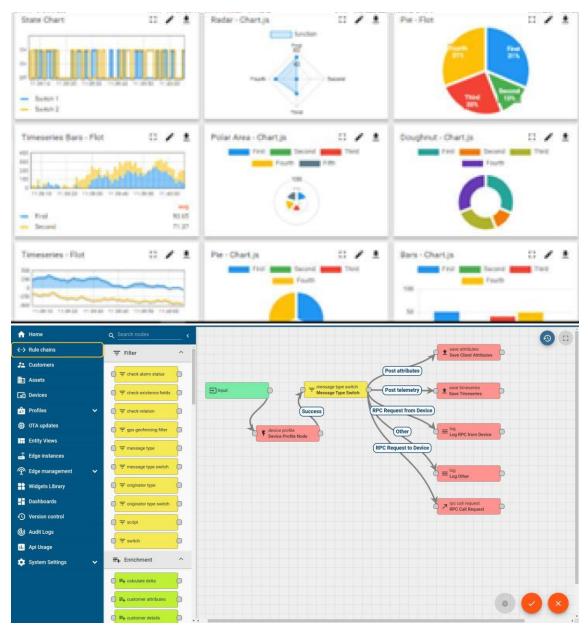
It has features to

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











Smart Factory Platform (







Factory watch is a platform for smart factory needs.

It provides Users/ Factory

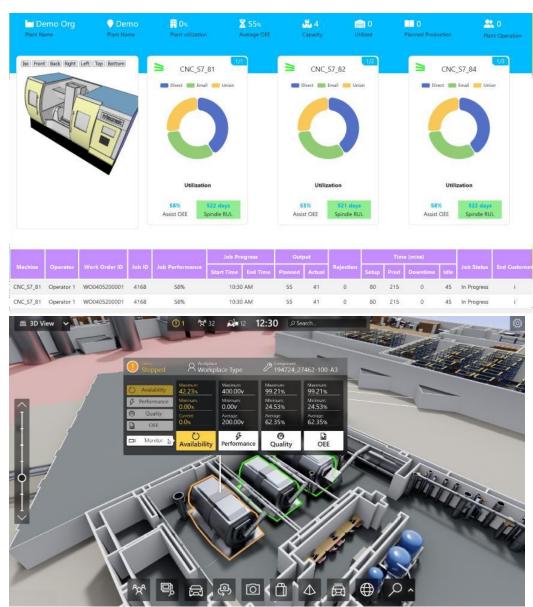
- with a scalable solution for their Production and asset monitoring
- OEE and predictive maintenance solution scaling up to digital twin for your assets.
 - to unleased the true potential of the data that their machines are generating and helps to identify the KPIs and also improve them.
 - A modular architecture that allows users to choose the service that they what 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.















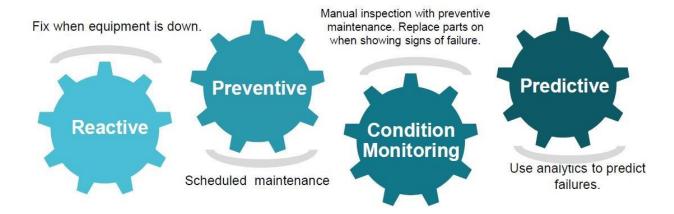


based Solution

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.

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.



About upskill Campus (USC)

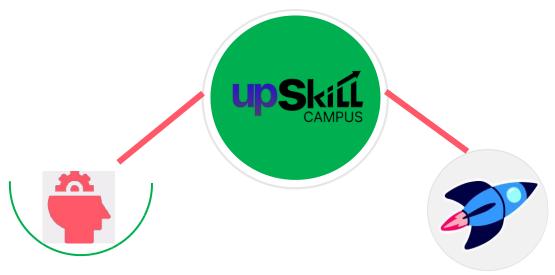
upskill Campus along with The IoT Academy and in association with Uniconverge technologies has facilitated the smooth execution of the complete internship process.

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







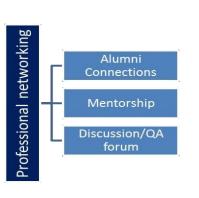


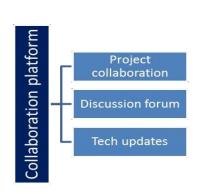
Seeing need of upskilling in self paced manner along-with additional support services e.g. Internship, projects, interaction with Industry experts, Career growth Services

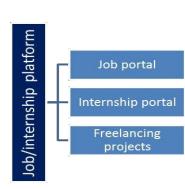
upSkill Campus aiming to upskill 1 million learners in next 5 year

https://www.upskillcam pus.com/















❖ 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.

❖ Objectives of this Internship program

The objective for this internship program was to

- To gain **practical experience** in software development and problem-solving.
- To develop a **File Organiser tool** that automatically categorises and arranges files based on their type/extension.
- To understand and apply **file handling concepts** in Python (or whichever language you used).
- To learn how to design, implement, and test a real-world automation project.
- To improve coding, debugging, and logical thinking skills.
- To enhance time management and productivity by solving a common problem (unorganised files).
- To build a project that can be extended with advanced features like GUI, scheduling, or cloud integration.

Reference

- [1] Python Documentation https://docs.python.org/3/
- [2] OS Module in Python https://docs.python.org/3/library/os.html
- [3] Shutil Module (file operations) https://docs.python.org/3/library/shutil.html

Glossary

Terms	Acronym













Problem Statement

- Current issue: files on a computer/laptop get messy, hard to find, not structured.
- Users waste time searching for files.
- Manual arrangement is time-consuming and error-prone.







Existing and Proposed solution

- Existing solutions: Manual sorting, basic file explorers, third-party apps (limitations: not customizable, lack automation, limited features).
- Your solution: File Organiser that automatically scans a folder/directory and arranges files into categories based on extension or type.
- Value addition: saves time, customizable categories, user-friendly, scalable.

3.

- Code submission (Github link)
 https://github.com/TomarPrashant8923/upskillcampus/blob/main/FileOrganiser.py
 - * Report submission (Github link):.

https://github.com/TomarPrashant8923/upskillcampus/blob/main/FileOrganiser_PrashantTomar_USC_UC T.pdf







Proposed Design/ Model

- High-level diagram: Show a block diagram with *Input (Files in folder)* → *Processing (File Organiser logic: identify extension/type)* → *Output (Organised folders)*.
- Low-level diagram: Flowchart (Start \rightarrow Select folder \rightarrow Check file type \rightarrow Move to respective folder \rightarrow End).
- Interfaces: Simple CLI/GUI to allow folder selection.
 - High Level Diagram (if applicable)

Figure 1: HIGH LEVEL DIAGRAM OF THE SYSTEM

Low Level Diagram (if applicable)

Interfaces (if applicable)

Update with Block Diagrams, Data flow, protocols, FLOW Charts, State Machines, Memory Buffer Management.







❖ Performance Test

- Constraints: speed (organising large folders quickly), accuracy (correct file classification), memory usage.
- Test results: organised X number of files in Y seconds without error.
- Example: 500 files categorised in 10 seconds.
- ❖ Test Plan/ Test Cases
- Test Procedure
- Performance Outcome







My learnings

- Learned about file handling in Pythonm.
- Learned about automation, directory structure, and exception handling.
- Improved problem-solving and coding skills.







❖ Future work scope

- Add GUI for better user experience.
- Add AI-based classification (e.g., based on file content not just extension).
- Add scheduling (auto-organise every day).
- Add cloud support (organise Google Drive/Dropbox files).