A REPORT

ON

SCREEN DEVELOPMENT USING EXTENSIBILITY TOOLKIT

Submitted by,

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Under the guidance of,

Prof. Mohamed Shakir

in partial fulfillment for the award of the degree of

BACHELOR OF TECHNOLOGY

IN

COMPUTER ENGINEERING

At

PRESIDENCY UNIVERSITY, BENGALURU

MAY 2025

PRESIDENCY UNIVERSITY

PRESIDENCY SCHOOL OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE

This is to certify that the Internship/Project report **"SCREEN DEVELOPMENT USING EXTENSIBILITY TOOLKIT"** being submitted by "Yerramilli Sai Prateek" bearing roll number "20211COM0042" in partial fulfillment of the requirement for the award of the degree of Bachelor of Technology in Computer Engineering is a bonafide work carried out under my supervision.

Prof. MOHAMED SHAKIR 12.5.2025
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DECLARATION

I hereby declare that the work, which is being presented in the report entitled "**SCREEN DEVELOPMENT USING EXTENSIBILITY TOOLKIT**" in partial fulfillment for the award of Degree of **Bachelor of Technology** in **Computer Engineering**, is a record of my own investigations carried under the guidance of **Prof. Mohamed Shakir, School of Computer Science and Engineering & Information Science, Presidency University, Bengaluru.**

I have not submitted the matter presented in this report anywhere for the award of any other Degree.

YSP 12/5/25

Yerramilli Sai Prateek,

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ABSTRACT

My internship at Profinch Solutions Pvt. Ltd. has been crucial between academic study and real-world software development. Over these months, I've not only understood the technical aspects, but also got to experience few important tasks like problem-solving, teamwork, and understanding how large-scale enterprise applications are built and maintained. Working on live banking projects gave me insight into mission-critical systems and the discipline required to keep them running smoothly.

A major focus of my work was building and integrating microservices using a Java-based framework. I learned how to design services that can scale independently, define clear RESTful endpoints, and manage configuration for reliable deployment across the various environments. This enhanced my understanding of how modern financial platforms assemble small, focused services into cohesive applications that handle high volumes of transactions with minimal latency.

At the database layer, I dove deep into procedural SQL development—authoring and tuning stored procedures, writing queries, and enforcing data rules close to the data itself. These activities demonstrated how core banking engines depend on efficient, ACID operations to maintain account balances, generate reports, and feed analytics systems in real time.

I also contributed to the design of data-entry screens used by the customers. Using a low-code screen-builder toolkit and an extensibility framework, I assembled form layouts and then layered in both field-level and form-level checks. For example, I ensured identifiers were auto-generated, dates fell within allowed ranges, and text fields conformed to formatting rules. Aligning these client-side features with server-side validations helped me prevent bad data from ever reaching the database—a vital practice in any regulated environment.

Maintaining uninterrupted service is very important in banking. I practiced deploying updates to an application server cluster—packaging services as deployable archives, updating configuration files, and activating new versions without taking down existing functions. When errors occurred, I used the secure file-transfer tools to retrieve server logs, traced exceptions back through Java stack traces and SQL error codes, and applied fixes. This log-first approach allowed me to resolve issues rapidly while preserving system availability.

Overall, this ongoing internship has equipped me with a balanced mix of hands-on technical skills and professional habits. I now understand how to build, validate, deploy, and support enterprise-grade services in a high-stakes environment—and how to work effectively within a team to deliver them.