



Team R&I

IS480 Project Proposal Project R&I

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V4.0.0

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Team Members:

- Chow Li Ting (liting.chow.2016@sis.smu.edu.sg) – Project Manager
- Mok Hao Ze Benjamin (benjaminmok.2016@sis.smu.edu.sg) – Full Stack Developer
- Raghavendar Gowri Sankar (raghavendar.2016@sis.smu.edu.sg) – Lead Back-End Developer
- Teng Shu Yan Rachel (rachel.teng.2016@sis.smu.edu.sg) – Lead Front-End Developer & UI/UX Developer
- Thevakumaren S/o N Morgaya (thevakumar.2016@sis.smu.edu.sg) – Deputy Front-End Developer & Quality Assurance
- T S Kautham (tskautham.2016@sis.smu.edu.sg) – Business Analyst & Deputy Back End Developer

Faculty Supervisor:

- Professor Tan Hwee Xian, Assistant Professor of Information Systems (Practice)

Sponsor and/or Clients (if any):

SMU Teaching Bank

- Professor Alan Megargel, Senior Lecturer of Information System

Project Overview

1.1 Project Description

Project R&I is an IS480 Project aimed at replacing the SMU tBank legacy Retail Internet Banking with an all new Retail Internet Banking application and introducing new functions under Wealth Management – Dual Currency, Wealth Portfolio and Stock management. These functions will be built on Vue.js framework and will make REST API calls using JSON/AJAX to the backend which is built on TIBCO software. For teaching purposes, a gamification module will also be integrated into the Retail Internet Banking application to facilitate in-class lab exercises for financial technology-related courses. It will be used to gauge the students understanding of real-world banking operations and its applications in finance.

The project’s X-factor is a proof deployment where the application will be used in the classroom to provide students with an experience of a real-world banking operations as well as exposing them to modern digital banking architecture which is typically used in banks today.

1.2 Motivation

SMU tBank’s legacy Retail Internet Banking application has been running for approximately 5 years, and is still being heavily utilized as an academic platform for students to simulate real world banking operations and technology scenarios during classrooms and lab exercises. With this legacy application lagging behind the use of any modern JavaScript framework, there have been various maintainability issues and problems that faculties and students face in supporting the outdated backbone.js JavaScript framework.

As such, by adopting Vue.js framework, it will play an integral role to replace the legacy SMU tBank Retail Internet Banking application. Vue.js has become more prevalent in the market than before, gaining the #1 spot among the most popular JavaScript projects and becoming the 5th most starred project on GitHub. It is hence an advantage to leverage on Vue.js framework in order to boost development speed and making the application easier to support ongoing.

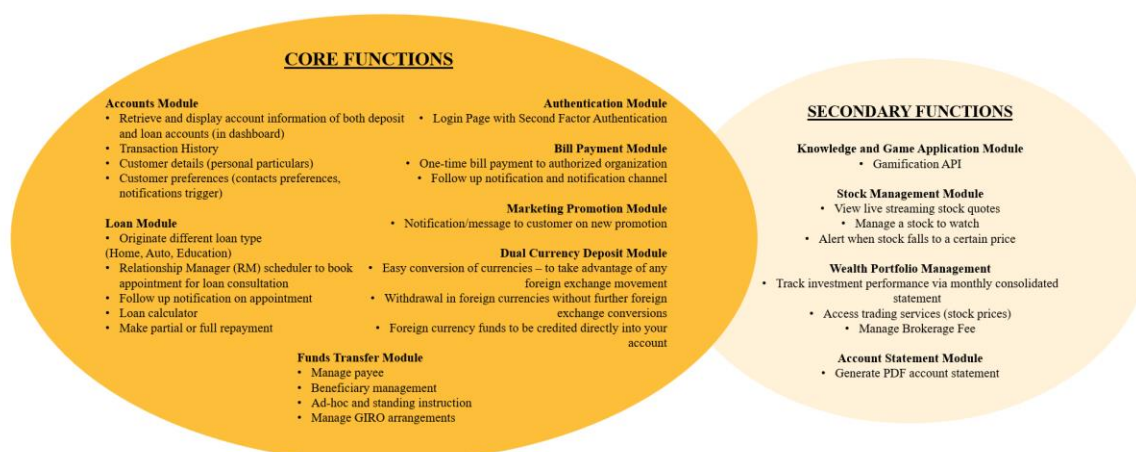
1.3 Stakeholders

Sponsor	Prof Alan Megargel is a Senior Lecturer of Information Systems at the Singapore Management University and Project Head, T-bank and Special Projects. He is currently working on a multiyear project to develop SMU tBank that adheres strongly to today's best practices.
User	Faculties, students of SMU who will use SMU tBank for academic purposes such as in banking related coursework, labs, and student projects.

1.4 Deliverables

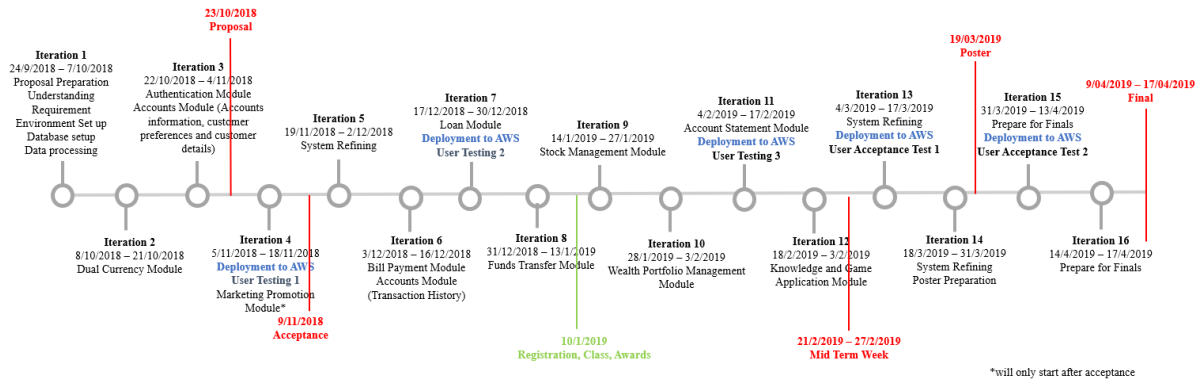
A minimum viable product of the tBank Web Application will be delivered to the client. Other deliverables will include SQL, EAQ, WAR files, use cases, codes and documentations.

1.5 Scope



1.6 Project Plan

○ Project milestone:



○ Risks:

Risk	Risk Mitigation
Unfamiliar with Vue.js	All team members will undergo a Vue.js course to gain familiarity on how the technology works and the grasp the technical concepts of using a progressive framework improve existing applications.
Team Members unavailable due to internships (overseas or local) and school and work commitments	Regular group discussion will take place weekly after members' working hours. Overseas members will be kept up to date on the progress and allocated respective tasks by the Project Manager. The project codes are segmented into front and back end. Each segment will be handled by minimally two members, to make it clear who will take over in case of unavailability.

1.7 Resource

In their project, our team aims to have weekly team meeting, weekly sponsor meeting and fortnightly supervisor meetings inform stakeholders the progress of the project.

Video/Tutorial/Documentation	tBank Documentations, Scrimba
Project management/Version Management	GitHub, Google Sheet
Front-End Development	Vue.js, HTML, CSS, Javascript, Axios
Back-End Development	Node.js, Tibco, Tomcat, mySQL