**CSC445 Software Engineering**

Kubera E-Banking System

Independent Study

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**Software Project Management Plan**

**Document**

**Version: 1.0** **Date: 10/09/2023**

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1. **Overview**

1.1 The purpose of this Software Project Management Plan is to define all of the responsibilities that must be met for the Kubera E-Banking system’s development in a language that can be clearly understood by stakeholders and developers alike. Ultimately, it is expected that the Kubera E-Banking system will provide customers with a way to bank that is less expensive and more convenient than the traditional banking model.

1. **References**

[1] “IEEE Guide for Software Requirements Specifications,” *IEEE Std 830-1984*, pp. 1–26, Feb. 1984, doi: https://doi.org/10.1109/IEEESTD.1984.119205.

[2] V. machine backup expert, “Financial Data Protection: How Do Banks Backup Data? - Vinchin Backup,” *@Vinchin*. https://www.vinchin.com/en/blog/how-do-banks-backup-data.html (accessed Oct. 08, 2023).

[3] “How to run a local Django development server over HTTPS with a trusted self-signed SSL certificate,” *timonweb.com*. https://timonweb.com/Flask/https-Flask-development-server-ssl-certificate/ (accessed Oct. 08, 2023).

1. **Definitions**

**3.1 acquirer:** Dr. Kehan Gao

**3.2 baseline:** not applicable

**3.3 milestone:**

3.3.1 Software Requirements Specification Document due: 10/9/2023

3.3.2 Software Project Management Plan due: 10/9/2023

3.3.3 Software Design Document due: 11/6/2023

3.3.4 Final Deliverable due: 12/4/2023

**3.4 project agreement:** [**CSC445-SRS - eBanking.docx**](CSC445-SRS%20-%20eBanking.docx)

**3.5 project deliverable:**

3.5.1 Source code

3.5.2 All associated documentation

**3.6 software project:**

3.6.1 Software Requirements Specification Document

3.6.2 Software Project Management Plan

3.6.3 Software Design Document

3.6.4 Source Code

**3.7 supplier:**

3.7.1 Development: Christie Kenyon

3.7.2 Consultation: Dr. Kehan Gao

3.7.3 Consultation: Riley Knybel

**3.8 supporting process:**

3.8.1 Weekly consults with Riley Knybel

3.8.2 Consults with Dr. Kehan Gao as needed

**3.9 work activity:**

3.9.1 Software Requirements Specification Document

3.9.2 Software Project Management Plan

3.9.3 Software Design Document

3.9.4 Coding

3.9.5 Code validation

**3.10 work package:**

**3.11 work product:**

3.11.1 Software Requirements Specification Document

3.11.2 Software Project Management Plan

3.11.3 Software Design Document

3.11.4 Source Code

3.11.5 Unit Test Plans

3.11.6 System Test Plans

**3.12 work task:**

1. **Elements of the software project management plan**

4.1 Overview

4.1.1 Project Summary: The Kubera E-Banking system will offer a platform where any adult U.S. resident can create a checking and/or savings account online and perform all banking transactions through their account on the website.

4.1.1.1 Purpose, scope, and objectives: The Kubera E-Banking system is intended to make it less expensive and more convenient for people to bank by eliminating the need to go to a physical location to access their funds. There is the added convenience of being able to pay bills online through their bank account. Account holders will be able to do all of their banking in the comfort of their own homes.

4.1.1.2 Assumptions and constraints: All Operating Sytems will be supported and all web browsers except Internet Explorer versions prior to version 11 will also be supported.

4.1.1.3 Project deliverables: Users will be able to create an account, uploading the necessary identification and entering the appropriate profile information, and creating a username and password to secure the access to their account. Account holders will be able to pay bills online through their checking account, transfer funds across accounts, make deposits through ATMs or by uploading photos of checks made out to them, and will have a debit card linked to their checking account. They will be able to check their balance and view their transaction history, and even close their accounts through the site. Administrative users will be able to freeze accounts upon authorized law enforcement request or due to fraud, search the supporting database, and access a customer’s account upon their request should they provide ID authentication.

4.1.1.4 Schedule and budget summary

4.1.1.4.1 Design documentation will be completed by 11/6/2023

4.1.1.4.2 The source code and all documentation will be completed by 12/3/2023

4.1.2 Evolution of the SPMP: Maintenance and backup scheduled for midnight to 3 a.m. EST, daily.

4.2 References: no additional references

4.3 Definitions: no additional definitions

4.4 Project organization

4.4.1 External interfaces: Project feedback will be provided by Dr. Kehan Gao.

4.4.2 Internal structure: Because this is an independent study, it is a solo effort rather than a team effort, so the sole developer is Christie Kenyon, who will consult with Riley Knybel and acquirer Dr. Kehan Gao in the development and validation of this project.

4.4.3 Roles and responsibilities: Christie Kenyon is responsible for all documentation and coding.

4.5 Managerial process plans: Used schedule provided by consultant Dr. Kehan Gao: <https://easternct.blackboard.com/ultra/courses/_41047_1/cl/outline>

4.5.1 Project start-up plan

4.5.1.1 Estimation plan: The use of Flask, Python, and SQLite means the use of free tools, so there is no cost associated with the development of this project.

4.5.1.2 Staffing plan: This system will require no additional hires at this time. Additional hiring will be considered if the number of sign-ups merit it.

4.5.1.3 Resource acquisition plan: Not applicable

4.5.1.4 Project staff training plan: Staff assigned to customer service for the E-Banking system shall undergo one week of training.

4.5.2 Work plan

4.5.2.1 Work activities

4.5.2.2 Schedule allocation

4.5.2.3 Resource allocation

4.5.2.4 Budge allocation

4.5.3 Control plan

4.5.3.1 Requirements control plan

4.5.3.2 Schedule control plan

4.5.3.3 Budget control plan

4.5.3.4 Quality control plan

4.5.3.5 Reporting plan

4.5.3.6 Metrics collection plan

4.5.4 Risk management plan

4.5.5 Project closeout plan

4.6 Technical process plans

4.6.1 Process model

4.6.2 Methods, tools, and techniques

4.6.3 Infrastructure plan

4.6.4 Product acceptance plan

4.7 Supporting process plans

4.7.1 Configuration management plan: The source code and baseline versions of the documentation will be stored in GitHub.

4.7.2 Verification and validation plan: System Test Plan to be conducted prior to delivery

4.7.3 Documentation plan:

4.7.3.1 Software Requirements Specification using IEEE Standards

4.7.3.2 Software Project Management using IEEE Standards

4.7.3.3 Software Design Document using IEEE Standards

4.7.3.4 Blackboard milestone calendar for task scheduling

4.7.3.5 GitHub for baseline documents and source code

4.7.4 Quality assurance plan: unit testing to be conducted incrementally during code development.

4.7.5 Reviews and audits plan: Conferences with Dr. Kehan Gao to be conducted on an as needed basis.

4.7.6 Problem resolution plan: Consultation with Riley Knybel and/or Dr. Kehan Gao.

4.7.7 Subcontractor management plans: Not Applicable

4.7.8 Process improvement plan: Regular discussions with consultants, Riley Knybel and Dr. Kehan Gao.

4.8 Additional plans: A demo of the Kubera E-Banking System website will be conducted for acquirer, Dr. Kehan Gao on a date to be determined.