## American International University- Bangladesh (AIUB)

## Department of Computer Science

**CSC4125: Software Development Project Management**

**Summer 2019-2020**

## Project: Developing a Software Development Project Management Plan for Dhaka Subway Systems Automated Ticket Issuing System

## Objective

The objective of this project is to introduce students with the concept of Software Development Project Management Plan and how to prepare this document.

## Submission Rules:

**Deadline**: **September 10,** **2020 (Thursday)**

**Group**: Group of 5; you have to choose your own project-partners

**Submission**: Submit a **soft copy** of Software Development Project Management Plan

to **arouf@aiub.edu** . **Subject of the e-mail must be “SDPM (A) Project”.**

**File name MUST be any of the group members ID.docx (e.g. 16-32425-**

**1.docx)**. On the top page (Title page) of your document, write the project title, the

Name and ID # of the group members (in a table). Also, write your course title and

section name on title page.

**Late Submission**: Not allowed

**Project marks**: 20% of the final term marks

## Problem Statement:

Your Software Firm **Datasoft, Inc**. has been awarded a contract to develop software for automated ticket issuing system for Dhaka Subway Systems. General specification of the software application is as follows:

“An automated ticket issuing system sells subway tickets. Users select their destination, and input a credit card and a PIN (personal identification number) number. The subway ticket is issued and their credit card account charged with its cost. When the user presses the start button, a menu display of potential destinations is activated along with a message to the user to select a destination. Once a destination has been selected, users are requested to insert their credit card. Its validity is checked and the user is then requested to input a PIN number. When the credit transaction has been validated, the ticket is issued.

”

The software has the following set of requirements:

* The software will support interface to touch screen monitors as well as keyboard interface.
* The software will support display of the list of incoming trains, their destinations and arrival and departure times, fare, expected travel time
* The software will support multiple ticket purchase simultaneously.
* The software will support limiting the number of tickets purchased at the same time. This privilege control will be done by the administrator access only.
* The software will support ticket cancellation before final confirmation of the purchase.
* The software will support purchased ticket cancellation by the administrator.
* The software will support credit card transaction and validation.
* The software will support transaction using bill(taka) /coin
* The software will support next and previous navigation during ticket purchase process.
* The software will support ticket availability information.
* The software will support information display via web.
* The software will support account management of Dhaka Subway Systems
* The software will use Oracle database server. Dhaka North City Corporation (DNCC) will be responsible for the license fees of Oracle database server.

The major functionalities of the system are as follows:

* 24/7 service
* Ticket availability information display
* Train arrival and departure time display
* Touch screen menu selection
* Source and destination selection
* Multiple ticket issue in one transaction
* Limit the number of ticket issue at the same time
* Cancellation of transactions any time during transaction
* Credit card transaction
* Coin/Taka recognition and acceptance

You are required to develop a Software Development Project Management Plan which must contain sections described in the following section.

## Software Development Project Management Plan Template

1. Title page
2. Revision history page
3. Introduction
4. Process Model  
   Software development life cycle model
   1. Choose a model
   2. Justify why you chose this model
   3. Software life cycle flow chart (Optional)
5. Quality gate for each phase of software development
6. List of tasks (work breakdown structure)
7. Estimation for each task. Use COCOMO II for estimation.  
   Assumption: One Engineer works for 8 hours a day and 5 days a week. Engineers have average experience.
8. Schedule the tasks  
   Use MS Excel as scheduling tool. You may choose to use other freeware/demo tool  
   Assume that only 80% time of an engineer per day will be used to develop software. Other 20% will be overhead e.g. reading e-mails, attending meetings, process improvement activities etc.
9. Prepare list of milestones
10. Staffing Plan (Assign tasks to Software Engineers)
11. Monitoring and Controlling Mechanism
12. Risk Management  
    List 2-3 risks and state risk mitigation plan against each risk
13. List of Deliverables
14. Defect Tracking Process
15. Metrics   
    List of metrics to be collected (at least 2-3)
16. Postmortem   
    Plan a postmortem