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## American International University- Bangladesh (AIUB)

## Department of Computer Science

## Software Quality and Testing

## Spring 2021-2022

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## Project: Developing a Test Plan for Dhaka Subway Systems Automated Ticket Issuing System

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## Objective:

The objective of this project is to develop a test plan. The students will apply their knowledge and understanding learned from the course in order to develop the test plan. Based on the given requirements and functionalities of the system under test, the students will write the Test Plan.

## Submission Rules:

**Deadline**: **April 19,** **2022**

**Group**: **Group of four or five** (minimum– four members; maximum– five members);

You have to choose your project-partners.

**Submission**: Submit a hard copy of the test plan to me in the class.

On the top page (title page) of your document, write the Name and ID # of the

group members in a table. Also, write your course title and section on title page.

**Plagiarism**: 100% penalty for all the groups involved in copying each other’s works (It includes the

original producer).

**Late Submission**: NOT allowed

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

## Problem Statement:

Suppose your software firm **Datasoft, Inc.** has been awarded a contract to develop software for Dhaka Subway Systems Automated Ticket Issuing System. You are the Test Lead of the project. Based on the requirements and functionalities of the system, you have to develop (write) a software test plan.

General description and specifications of the software application are 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

A sample test plan outline is given below. Use it for your project; however **you can customize it**.

**Sample TEST PLAN Outline:**

**1. Test Plan Identifier**

**2. References**

**3. Introduction**

**4. Test Items**

**5. Software risk issues**

**6. Features to be tested**

**7. Features not to be tested**

**8. Approach**

**9. Item Pass/Fail criteria**

**10. Suspension Criteria and Resumption Requirements**

**11. Test Deliverables**

**12. Remaining test tasks**

**13. Environmental needs**

**14. Staffing and Training needs**

**15. Responsibilities**

**16. Schedule**

**17. Planning Risks and Contingencies**

**18. Approvals**

**19. Glossary**