HIGHER EDUCATION PROGRAMMES

Academic Year 2020:	July - December
Formative Assessment 1:	Praxis 2 (HPXS200-1)
NQF Level, Credits:	6, 20
Weighting:	40%
Assessment Type:	Project
Educator:	Charles Muranda
Examiner:	Charles Muranda
Due Date:	04 September
Total:	70 Marks

Instructions:

1. This paper consists of 1 Project requirement.

2. Your submission will consist of:

   a) Zipped Java project
   b) A professionally written pdf document explaining your project functionality.

Scenario

You were approached by your friend John who owns a restaurant called Madconalds that operates in the low-density suburbs of Johannesburg. A few weeks back, he came up with a brilliant idea of online ordering from his restaurant. A customer will order for food in advance, and the restaurant staff starts preparing the food before the customer gets to the restaurant. The process will save the customer's time that was being lost while waiting for the order to be prepared. John gave you the following system requirements.

Madconalds requires a system where a customer orders his food before coming to the restaurant. The system needs to have an interface for an ordering form. On the form,s the customer supplies the information of the food items that they are ordering, the number of guests that are coming, and the date and time when they are coming to the restaurant. The time must comply with the restaurant operating times. The restaurant opens at 9 am and closes at 10 pm Monday to Saturday and opens at 8 am and closes at 9 pm on a Sunday.

There should be a waiter's interface where the waiter sees the number of guests and the time that they are coming to the restaurant. The information is for the waiter to make the necessary table arrangements. There is also a need for a kitchen interface so that the kitchen staff can start preparing the dishes based on the customers' orders.

You are required to:

1. Design a JFrame interface for the customers' ordering form. The essential information required in the form is the name of the paying customer, the dishes that they are ordering, the number of guests (including the customer), and the date and time when they will come to the restaurant. You can include any other necessary ordering information of your choice. For simplicity, we are not including any information regarding the prices of the dishes.

   You need to save that information in a text file so that the other interfaces can obtain the information. You also required to validate your inputs to check if they are compatible with the required types, e.g. to invalidate a booking that is at 9:30 pm on a Sunday (because the restaurant closes at 9 pm on Sundays). These invalidations must have appropriate messages such as "Invalid booking time."

2. Design a JFrame interface that the waiters will use to see the number of guests that are coming and their time of arrival. The interface will read the information from the text file, where you saved the customer's order. For simplicity, the interface will only read and show the information for only one order.

3. Design a JFrame interface for the kitchen staff to prepare for the meal. The interface should only show the dishes ordered by the customer and should read from the text file with the customer's order. For simplicity, read data for only one order.

You are required to submit:

1. a zipped JAVA project with the interfaces of the required system.
2. a document to illustrate how the system works. Use diagrams or screenshots where possible. This document will also help as a "manual document" for new users who are not familiar with the technology.

Note: Use the Rubric below to guide your development of the application**.**

No	Criteria	Requirements	
1	***Interfaces*** (35 marks)	Shows all the required interfaces for the system (up to 22 marks)	22
		The interface elements are laid out neatly and consistently. There is a sort of theme or colour code or style consistency on all the interfaces (up to 5 marks)	5
2	***Programming*** (20 marks)	Appropriate form fields have validity checks on the input data, e.g. input for the number of guests should be numerical or check to see if the booking date and time is not in the past or if it's not when the restaurant is closed etc. (up to 15 marks)	15
		The naming convention is followed, i.e., field names are in correspondence with their function (up to 5 marks)	5
5	***Data Saving*** (15 marks)	The booking details can be saved to the file system without any problems. (up to 5 marks)	5
		The other interfaces can correctly retrieve appropriate information from the file system without problems (up to 8 marks)	8
6	***Documentation*** (10 marks)	Clear and well-articulated document on the system and the interfaces with diagrams where appropriate (up to 10 marks)	10
Total Marks (70 marks)			