APU Programming Café Management System

In order to improve the students' performance, enhance their problem-solving skill and confidence level in coding, APU decided to set up an experimental program called "Programming Café" to provide additional coding sessions for students outside their regular timetable. Every session will have a duration of TWO hours and classroom will be assigned for the purpose.

Programming Café sessions will be conducted by selective APU Graduate Students with good knowledge in their respective programming language, who will be paid a flat rate of RM100 for each TWO hours Programming Cafe session conducted.

APU has selected some of the common programming languages for the Programming Café Sessions in this experimental phase. The selected programming language sessions are listed in Table 1. Additional session on different coding subject can be added as required. However, all the sessions listed in Table 1 must be added into the system by default.

Table 1: Programming Café Sessions

Session Code	**Title**	**Day**	**Start Time**	**Location**	**Tutor Code**
PYP101	Python Programming	Saturday	9.00am	C-01-01	T01
JAV102	Java Programming	Sunday	9.00am	C-01-02	T02
CPL103	C Programming	Saturday	2.00pm	C-01-03	T03
WEB104	Web Development	Sunday	2.00pm	C-01-04	T04
CSP105	C Sharp Programming	Monday	7.00pm	C-01-05	T05

Table 2. Tutor

Tutor ID	**Name**	**Title**
T01	Albert	Web Development
T02	Amad	C Sharp Programming
T03	Steve	Python Programming

You are required to write a program in C language for APU to manage the Programming Café Sessions based on the requirement given below. The system must be able to handle THREE different types of users in their respective functional areas. The three types of users are Admin, Tutor, and Student. Relevant features associated with the user type will be provided in your system automatically based on the login credential.

1. Functional features for Admin user type

a) Registration of Tutor

Admin must be able to add new tutor into the system. Details listed in Table 2 need to be recorded in the process. Any additional details can be added if necessary. All the tutors listed in Table 2 to be added by default and available for selection when the system is run for the first time. The registration process will also include tutor password allocation to allow the tutor to login using **Tutor Code** and **Password** allocated.

b) Adding new programming café session.

System user must be able to add new session or title into the system. All the sessions listed in Table 1 to be added by default and available for selection when the system is run for the first time. The tutor must be registered first before a new session can be assigned to the tutor. Each session can only be assigned to one tutor and one tutor can only take up one session.

c) Registration of Student

Basic student details such as TP number and name must be recorded in the registration. The registration process will also include student password allocation to allow the student to login using **TP Number** and **Password** allocated.

d) Enrol student in a session.

A session can be linked to the student in this process.

e) Listing of Programming Café sessions and participating students. See below for the sample output for this option:

Student Name	Session Code	Tutor Code	Location
Abdullah	CSP105	Amad	C-01-05
Yogeswaran	PYP101	Albert	C-01-01

2. Functional features for Tutor user type

Allow Tutor to view listing of Session(s) assigned to their Tutor Code. Listing format refer to 1 (e).

3. Functional features for Student Allow student to view listing of Session(s) assigned to their student's name. Listing format refer to 1 (e). In addition, students are allowed to enrol themselves in any of the available session.