National University of Computer & Emerging Sciences, Karachi
Spring 2022 (School of Computing)
Assignment # 1

Course Code: CS-1004	**Course Name:** Object-oriented Programming
Course Instructor: Syed Zain Ul Hassan	
Open Date: February 23, 2022	**Deadline:** March 2, 2022 (11:55 pm)

Instructions:

- There are two (2) tasks in total.
- You can use Google if you need to (although it's likely that you won't have to)
- Don't share your solutions with each other
- Use comments to explain your code wherever applicable

Submission:

- You'll need to submit a single *.txt* file containing separate solutions for each task
- Before submission, rename your file as your ID e.g. *k21-1234.docx*
- To be submitted on **Google Classroom** *(code: 2mnoiwi)*

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Task# 1:

Create a class named ***StudentSociety*** with the following:

- Data Members: Society Name (string), Faculty Head(string), President(string), General Secretary (string), Budget(int), Events(string[ ])
- Constructor(s):
  - To create objects and initializing all fields by taking user input in constructor scope.
  - To create objects and initializing all fields by taking values as parameters.
  - To create objects that initialize all fields except President and General Secretary, this constructor should call function **Poll( )** to get these values
- Functions:
  - **Poll**( ): This function takes no parameters and returns a string array of size 2. When called, it takes user inputs to initialize the array and returns it.
  - Accessors and Mutators for all fields

Task# 2:

Read and try to understand the following scenario and implement it using any object-oriented concepts learned so far:

Steins;Gate Limited is a company that makes microwave ovens and mechanical clocks. The quality of their products makes them one of the leading companies around. To oversee their operations, the company has set up offices in numerous cities of Pakistan. However, all of their offices have the same management structure i.e., each of these offices have a manager, an office code (3-letter code).

The company usually allocates an amount of PKR 50 million per year and all of the offices pay their employees from this budget. In other words, it's a shared pool of money.

Although the manager is himself an employee of the company, his job is to manage other employees of his office. The company normally requires that the record of each employee is maintained e.g., their first name, last name, employee code (4-letter code), currently monthly salary and full address.

The employee code of each manager must start with "**m**" followed by three arbitrary letters. The employee code of others in that particular office can start with any other letter than "**m**".

Moreover, it has to be ensured that the total per month salaries of all employees in each office don't exceed PKR 100,000.

Also, the owner of the company has a pet cat named *Shenron*.

Hint: You can assume that the company controls and "creates" all employees and offices from the *main( ) function*.