Problem Statement #2: Mr. Shishir Singh Chauhan

SPOC Name:

Date:

N candidates (numbered from 11 to N) join MUJ (Manipal University Jaipur). The first 5 candidates join on the first day, and then, on every subsequent day, the next 5 candidates join in. For example, if there are 12 candidates, candidates numbered 1 to 5 will join on day 1, candidates numbered 6 to 10 on day 2 and the remaining 2 candidates will join on day 3.

Candidate numbered K decided to turn down his offer and thus, the University adjusts the position by shifting up all the higher numbered candidates. This leads to a change in the joining day of some of the candidates.

Help MUJ to determine the number of candidates who will join on a different day than expected. Generate the Report for the above as an output.

Name & Signature

SPOC Member1 Member2 Member 3

Problem Statement #4: Mr. Harish Sharma

SPOC Name: **Date:**

Objective: Activity Reporting and Document Storage

Problem Statement:
An institution collects various reports, like project or activity reports. We require a portal where we submit this data to a webpage and generate a .xls report with all the fields from the data form and public link to the report as a column. Fields are as follows:

- Name of activity
- Date of event
- Date of Entry
- Organizing person / Department
- Number of attendees
- Link of the report (hyper link)
- Entry done by (person's Email ID)

Technology: HTML (Hypertext Markup Language), CSS (Cascading Style Sheets), JavaScript, cloud storage, public link availability.

Name & Signature

SPOC Member1 Member2 Member 3

Problem Statement #5: Dr Ajay Kumar

SPOC Name: **Date:**

Minor Specialization Recommendation system

Problem Statement:

- Interface / software, which links student's marks data and generates recommendations for selection of minor specialization. Assigning student to a group depending upon marks obtained in various preliminary subjects.
- Behavioural analysis where the behavioural pattern of student can be analysed and predicted. E.g.-marks obtained or performance of student in various subjects / projects/ viva.
- Categorizing various subjects into basic groups and then analysing the performance and then suggesting students with list of specialization.

Extra Details: Mapping of subject to category. Some of the categories for classification: Software Development: PSUC, OOPs using java, Data Structure.

- Data Analytics: OOPs using python, Data Structure, RDBMS
- DB Manager: PSUC, Data structure, RDBMS, SQL
- System Engineer: PSUC, Data Structure, OS, CoA
- Research: Python, Automata, AI.
- Network Administrator: PSUC, Computer Network, Data Communication

Expectation: Department to get a list of students depending upon their performance for the respective minor specialization.

Constraints:
Marks in examination for a subject: 0<=m<=100
Students in each category: minimum - 10% of total strength
Maximum - 60 students

Name & Signature

SPOC Member1 Member2 Member 3

Team Name/Number:

SPOC Name: **Date:**

Problem Statement #3: Mr. Mayank Jain

Problem Statement: Attendance System using mobile camera.

Input: Hover the camera in front of faces of the students and list of students those are registered in that class.

Output: Generate the excel sheet of all the faces covered through the camera and make present otherwise mark absent.

End product: Web application/ Mobile application.

Name & Signature

SPOC Member1 Member2 Member 3

Problem Statement #1: Dr S. Roy

SPOC Name: **Date:**

Background: Passwords are ubiquitous today on any platform, on possibly any website. But to remember so difficult passwords and that too on numerous websites seems daunting and therefore you can devise a project illustrating graphical password strategy. This will allow the user to set passwords in the form of graphical presentation in a certain pattern and later use that pattern to login to the system.

Summary: Remembering numerous passwords from various sites can be difficult for a user. So to provide some flexibility we can provide users a graphical password authentication system where instead of creating a password a user has to select graphical objects in a particular order to keep it as their password.

Objective: In this method, the user is required to select some images (let's say different chocolates) in a specific pattern (for example dairy milk is followed by 5 stars which is in turn followed by KitKat and so on). Next time the user tries to log in, the images would have been shuffled, but the user will be required to follow the same pattern which was used initially. Every time the user will have to use the same sequence while the images are placed in different ways. This type of authentication is difficult to break since neither brute force nor dictionary attacks could breach it. We need techniques that can be easily implemented and provide better results to this process.

Name & Signature

SPOC Member1 Member2 Member 3