### Problem Statement and Requirements

**Goal:** Create a program to manage data for 58 students, each with the following properties:

1. **Name:**

* **Maximum 30 characters.**
* **It should only contain alphabets.**
* **It should not contain any numbers or special characters.**

1. **USN (University Serial Number)**:
   1. Exactly 10 characters, a combination of letters and numbers.
   2. Must be unique for each student.
   3. Each of the positions should contain the following format:

**Position 1**: **Digit**

**Position 2**: **Uppercase Alphabet**

**Position 3**: **Uppercase Alphabet**

**Position 4-5**: **Digits**

**Position 6**: **Uppercase Alphabet**

**Position 7**: **Uppercase Alphabet**

**Position 8-10**: **Digits**

1. **Gender**:
   1. Single character: either 'M' for (Male) or 'F' for (Female).
2. **Date of Birth (DOB)**:
   1. Format: dd/mm/yyyy.
3. **Mobile Number**:
   1. Exactly 10 digits and unique for each student.

**Rules:**

* No duplicate USN or mobile numbers.
* Correct format should be followed for USN, gender, DOB, and mobile number.
* It should handle invalid inputs and missing information by showing that the input is invalid or the information is missing.
* All student data must be saved so data is not lost when it is closed.

### Program Features

* **Add a Student:**
  + The user should be prompted to enter the student’s USN, name, gender, DOB, and mobile number.
  + It should validate the input, making sure that the USN and mobile number are unique, and store the data.
* **Delete a Student:**
  + The user will enter the USN of the student to be deleted.
  + The system will search for the student by USN, and if found, remove their record.
  + After deletion, the remaining students will be re-organized to maintain continuity.
* **Display All Students:**
  + The system will display the list of all students, showing their USN, name, gender, DOB, and mobile number.
  + If there are no students, it should notify the user that the list is empty.
* **Update a Student's Information:**
  + The user will enter the USN of the student whose information needs to be updated.
  + Once the student is found, the user can modify their name, gender, DOB, or mobile number.
  + It will validate the new data before updating the record.
* **Exit the Program:**
  + The user can choose to exit the program.
  + It will stop accepting input and close the program.