Class Exercise:

Set

Exercise Description:

You are a teacher managing a class of students. Your task is to keep track of students who have submitted their assignments. You will create a program that allows you to perform set operations on the students' submission status. The program should have the following functionalities:

* Add students to the set of submissions.
* Remove students from the set of submissions.
* Check if a student has submitted their assignment.
* Count the number of students who have submitted their assignments.
* Display the list of students who have not submitted their assignments.

To accomplish this, you need to create a menu-driven program that provides options to perform these operations. The program should continue executing until the user chooses to exit.

def add\_student(submissions, student):

# Your code here

def remove\_student(submissions, student):

# Your code here

def check\_submission\_status(submissions, student):

# Your code here

def count\_submitted\_students(submissions):

# Your code here

def display\_missing\_students(submissions, all\_students):

# Your code here

def main():

# Your code here

if \_\_name\_\_ == "\_\_main\_\_":

    main()

--- Submission Management System ---

1. Add student

2. Remove student

3. Check submission status

4. Count submitted students

5. Display missing students

6. Exit

Enter your choice (1-6): 1

Enter the name of the student: Alice

Alice has been added to the submissions.

--- Submission Management System ---

1. Add student

2. Remove student

3. Check submission status

4. Count submitted students

5. Display missing students

6. Exit

Enter your choice (1-6): 1

Enter the name of the student: Bob

Bob has been added to the submissions.

--- Submission Management System ---

1. Add student

2. Remove student

3. Check submission status

4. Count submitted students

5. Display missing students

6. Exit

Enter your choice (1-6): 1

Enter the name of the student: Dave

Dave has been added to the submissions.

--- Submission Management System ---

1. Add student

2. Remove student

3. Check submission status

4. Count submitted students

5. Display missing students

6. Exit

Enter your choice (1-6): 3

Enter the name of the student: Charlie

Charlie has not submitted the assignment.

--- Submission Management System ---

1. Add student

2. Remove student

3. Check submission status

4. Count submitted students

5. Display missing students

6. Exit

Enter your choice (1-6): 4

The number of students who have submitted the assignment: 3

--- Submission Management System ---

1. Add student

2. Remove student

3. Check submission status

4. Count submitted students

5. Display missing students

6. Exit

Enter your choice (1-6): 5

The following students have not submitted their assignments:

Charlie

Eve

--- Submission Management System ---

1. Add student

2. Remove student

3. Check submission status

4. Count submitted students

5. Display missing students

6. Exit

Enter your choice (1-6): 2

Enter the name of the student: Alice

Alice has been removed from the submissions.

--- Submission Management System ---

1. Add student

2. Remove student

3. Check submission status

4. Count submitted students

5. Display missing students

6. Exit

Enter your choice (1-6): 5

The following students have not submitted their assignments:

Charlie

Eve

--- Submission Management System ---

1. Add student

2. Remove student

3. Check submission status

4. Count submitted students

5. Display missing students

6. Exit

Enter your choice (1-6): 6

Exiting the program...