Problem -1:

Scenario:

Nick Fury has assembled a team of Avengers to help him save the world from the evil Thanos. However, Thanos has stolen the Infinity Gauntlet and is using it to cause all sorts of chaos.

Team:

The list of Avengers on the team is:

- Iron Man
- Captain America
- Thor
- Black Widow
- Hulk
- Hawkeye

Infinity Stones:

The Infinity Stones are scattered across the universe. The Avengers must collect them all and use them to defeat Thanos.

Conditions:

- If the Avengers collect all six Infinity Stones, they will be able to defeat Thanos and save the world.
- If the Avengers fail to collect all six Infinity Stones, Thanos will destroy the universe.
- If the Avengers collect some but not all of the Infinity Stones, they will have to face Thanos in a final battle.

Sample Input:

Enter the number of Avengers: 3

Enter the name of Avenger 1: Iron Man

Enter the name of Avenger 2: Captain America

Enter the name of Avenger 3: Thor

Enter the number of Infinity Stones: 2

Enter the name of Infinity Stone 1: Space Stone

Enter the name of Infinity Stone 2: Mind Stone

Sample Output:

The Avengers have collected some but not all Infinity Stones and must face Thanos in a final battle.

Sample Input:

Enter the number of Avengers: 6

Enter the name of Avenger 1: Iron Man

Enter the name of Avenger 2: Captain America

Enter the name of Avenger 3: Thor

Enter the name of Avenger 4: Black Widow

Enter the name of Avenger 5: Hulk

Enter the name of Avenger 6: Hawkeye

Enter the number of Infinity Stones: 6

Enter the name of Infinity Stone 1: Space Stone

Enter the name of Infinity Stone 2: Mind Stone

Enter the name of Infinity Stone 3: Reality Stone

Enter the name of Infinity Stone 4: Power Stone

Enter the name of Infinity Stone 5: Time Stone

Enter the name of Infinity Stone 6: Soul Stone

Sample Output:

The Avengers have collected all six Infinity Stones and defeated Thanos!

Solution:

```python
def save_the_universe():
    """
    This function takes user input for the list of Avengers and Infinity Stones and determines
    whether they can defeat Thanos.
    """

    # Get the list of Avengers from the user
    team = []
    num_avengers = int(input("Enter the number of Avengers: "))
    for i in range(num_avengers):
        name = input("Enter the name of Avenger " + str(i + 1) + ": ")
        team.append(name)

    # Get the list of Infinity Stones from the user
    stones = []
    num_stones = int(input("Enter the number of Infinity Stones: "))
    for i in range(num_stones):
        name = input("Enter the name of Infinity Stone " + str(i + 1) + ": ")
        stones.append(name)

    # Initialize a counter to track the number of Infinity Stones collected
    stones_collected = 0

    # Loop through the list of Infinity Stones
    for stone in stones:
        # Check if the stone is in the list of stones collected by the Avengers
        if stone in ["Space Stone", "Mind Stone", "Reality Stone", "Power Stone", "Time Stone", "Soul Stone"]:
            stones_collected += 1
```

```python
    # Check if the Avengers have collected all six Infinity Stones
    if stones_collected == 6:
        print("The Avengers have collected all six Infinity Stones and defeated Thanos!")

    # Check if the Avengers have failed to collect any Infinity Stones
    elif stones_collected == 0:
        print("The Avengers have failed to collect any Infinity Stones and Thanos has destroyed the universe.")

    # Check if the Avengers have collected some but not all Infinity Stones
    else:
        print("The Avengers have collected some but not all Infinity Stones and must face Thanos in a final battle.")

# Call the function
save_the_universe()
```

Problem 2:

Scenario:

Tanjiro Kamado, the protagonist of Demon Slayer, is a young boy who joins the Demon Slayer Corps to avenge the death of his family and to protect humanity from demons.

Techniques:

Tanjiro has access to a number of techniques that he can use to defeat demons:

- **Water Breathing:** A powerful breathing technique that allows Tanjiro to manipulate water.
- **Hinokami Kagura:** A rare and powerful breathing technique that is passed down through Tanjiro's family.
- **Total Concentration Breathing:** A technique that allows Tanjiro to focus his breathing and enhance his physical abilities.
- **Demon Slayer Mark:** A mark that appears on Tanjiro's forehead when he is in a state of intense concentration.

Conditions:

- If Tanjiro uses Water Breathing and Hinokami Kagura together, he can unleash a devastating combo attack.
- If Tanjiro uses Total Concentration Breathing and the Demon Slayer Mark together, he can significantly enhance his speed and strength.

- If Tanjiro uses the techniques in the wrong order or combination, he will be overwhelmed by the demons and defeated.

Sample Input:

Enter the number of techniques: 4

Enter the name of technique 1: Water Breathing

Enter the name of technique 2: Hinokami Kagura

Enter the name of technique 3: Total Concentration Breathing

Enter the name of technique 4: Demon Slayer Mark

Sample Output:

Tanjiro has successfully defeated the demons!

Sample Input:

Enter the number of techniques: 3

Enter the name of technique 1: Water Breathing

Enter the name of technique 2: Hinokami Kagura

Enter the name of technique 3: Dance of the Fire God

Sample Output:

Tanjiro does not have all the necessary techniques to defeat the demons.

Solution:

```
def defeat_the_demons():
    """
    This function takes user input for the list of techniques and determines whether Tanjiro can defeat the demons.
    """

    # Get the list of techniques from the user
    techniques = []
    num_techniques = int(input("Enter the number of techniques: "))
    for i in range(num_techniques):
        name = input("Enter the name of technique " + str(i + 1) + ": ")
        techniques.append(name)

    # Check if Tanjiro has all the necessary techniques
    necessary_techniques = ["Water Breathing", "Hinokami Kagura", "Total Concentration Breathing", "Demon Slayer Mark"]
    if not all(technique in techniques for technique in necessary_techniques):
        print("Tanjiro does not have all the necessary techniques to defeat the demons.")
        return

    # Check if Tanjiro uses the techniques in the correct order
```

```python
    correct_order = ["Total Concentration Breathing", "Water Breathing", "Hinokami Kagura",
"Demon Slayer Mark"]
    if techniques != correct_order:
        print("Tanjiro used the techniques in the wrong order and was defeated by the demons.")
        return

    # If Tanjiro has all the necessary techniques and uses them in the correct order, he will defeat
the demons
    print("Tanjiro has successfully defeated the demons!")

# Call the function
defeat_the_demons()
```