

## **Fully Dressed Use Case Descriptions: “Determine Player Order”**

### **Determine Player Order:**

**Primary Actor:** Player

#### **Stakeholders and Interests:**

- Player: wants to know who will roll the dice first to begin the game
- Game developer: wants to ensure that the player that has the highest summation of numbers after rolling the dice gets to roll first when the game starts.

#### **Preconditions**

- The game setup is performed.

#### **Success Guarantee (Post conditions):**

- The first player is ready to roll their dice to begin the game.

#### **Main Success Scenario:**

1. The system chooses a player.
2. The system gives that player the opportunity to roll two dice at once.
3. After the player chooses to roll the dice, the system adds value on both the dice to calculate its' sum.
4. The system stores the summation value for its' corresponding player.
5. The system then chooses the next player.
6. Flow resumes at Step 2 until Step 5.
7. The system ensures that all the players have rolled the dice once.
8. The system then checks the players' summation value in descending order.
9. The system then lets the player with the highest summation value roll first in the game.
10. The system chooses the next player who has the second highest value to roll second in the game.
11. This process continues according to their summation value where the player with highest summation value rolls first and the player with the least value rolls last in each order of the game. *[Alt]: Two players have the same value]*
12. Use case ends.

**Alternative Flows:**

*Alt1: Two players have the same summation value.*

1. The system lets the player who rolled before the other player to have their turn before the other player with the same summation value.

**Exceptions:**

- If at any time the system is unable to do the summation or cannot store the value to its' corresponding player, the order of player's turn cannot be determined.

**Special requirements:**

- The order of player's turn is maintained throughout the game.

**Open issues:**

- Is the dice roll random and fair?
- Is the summation done correctly?

**Prepared by:** Zahra Tasnim, Group 7

# Sequence Diagram

