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| **Use Case 1** | **Starts Game** |
| **Summary** | Establish the number of players(2-4) and their names. Randomly generate the order of play. Game starts. |
| **Actors** | Player1(Administrator), Player2, (Player3, Player4 are optional), |
| **Triggers** | 2-4 players wish to set-up Technopoly |
| **Pre Conditions** | There are a minimum of 2 and a maximum of 4 players |
| **Post Conditions** | The valid number of players selected is displayed. A random order is generated. The players press start to begin the game. |
| **Flow** | 1. The *player(s)* are prompted to enter the number of valid players(between 2 and 4 players) 2. The *players* will be prompted in turn to enter a valid name(2-15 characters 3. Once all player names are added to the game a random order is assigned to the players and the game begins. |
| **Alternative Flow** | * At flow point 1:- If the number of players is invalid, the *player(s)* will be prompted again and reminded that the valid number of players is between 2 and 4 * At flow point 2:- If the name of the player is invalid or already exists in the game, the *player* will be prompted again and reminded that a valid name is between 2 and 15 characters(including – and ‘) excluding whitespace. |
| **Extension Points** | None |
| **Inclusions** | None |
| **Use Case 2** | **Takes Turn** |
| **Summary** | *Player* rolls dice and moves to the corresponding space. Three options are then posed to the player |
| **Actors** | Player(s) |
| **Triggers** | The game starts OR the player before has ended their turn |
| **Pre Conditions** | * [Use Case 1 Starts Game] :- The game is set up * It’s the *player* in question’s turn |
| **Post Conditions** | * [Inclusion USE CASE #] :- The *player* must select ‘end turn’ once they have completed their turn. The next player will repeat this operation. |
| **Flow** | 1. The player is shown: Player Number, Name, Balance, Properties Owned including Staff, the dice score and the space they have landed on. Eg, Player 1 | Joe Bloggs | £xx.xx | Owns: [AProperty, BProperty] | Rolled [2,6] | Landed on X. 2. The dice is rolled, and the *player* is moved to the corresponding space. Depending on the space landed on the *player* can: 3. Purchase Start-up [Extension Point A. Purchase Start-Up] 4. Pay Licence fee [Extension Point B. Pay Licence Fee] 5. The *player* can show menu after their roll [Inclusion Point A. Show Menu] |
| **Alternative Flow** | 1. At flow point 2:- If the *player* rolls a double (same value on both dice) the *player* is moved to the corresponding space. They finish that turn and take another go. 2. At flow point 2:- If doubles is rolled three times in a row; on the third turn the *player* suffers a penalty (tax or jail depending on the game iteration) 3. At flow point 3:- If the *player* has insufficient funds to pay a Licence fee, then that *player* is declared bankrupt and the game is over. The player with the highest net worth is deemed the winner. [Extension points B. Pay Fee and further extension point C. Bankruptcy] |
| **Extension Points** | 1. Purchase Start-Up – [Use Case #] 2. Pay Licence Fee –[ Use Case #] 3. Bankruptcy – [Use Case #] |
| **Inclusions** | 1. Show Menu – [Use Case #] |