**TECHNICAL DESIGN DOCUMENT**

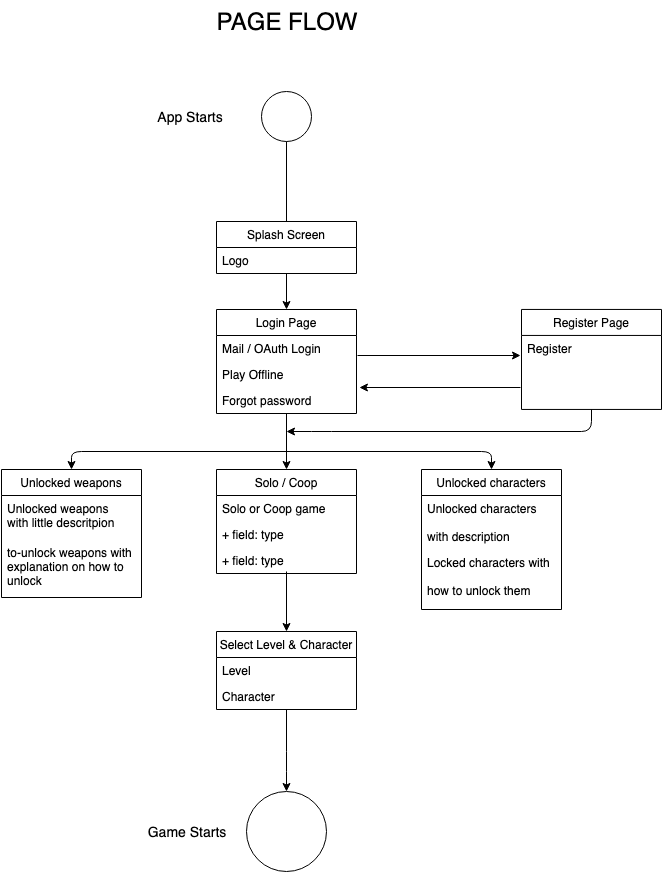
1. **Features List**

The game will have the following features :

* 1. Register & Login
  2. Multiplayer
  3. Personalize character
  4. Run game (endless)
  5. Unlocked weapons screen

1. **Technology**

The game will be developed with Unity C#. Targeted platforms are Windows, then Linux but it is not a priority. Client-side database : MySQL on Unity.

1. **Diagrams**
2. **Database Design**

|  |  |
| --- | --- |
| **Table : Player** | |
| Player ID | Integer |
| Player Name | Varchar 20 |
| FB ID | Varchar 64 |
| Google ID | Varchar 64 |
| Current Gold | Integer |
| Mission Done | Integer |
| Highest Score | Integer |

|  |  |
| --- | --- |
| **Table : Character** | |
| Character Name | Varchar 20 |
| Total HP | Integer |
| Max Level | Integer |

|  |  |
| --- | --- |
| **Table : Weapons** | |
| Weapon ID | Integer |
| Weapon Name | Varchar 20 |
| Low Damage | Integer |
| High Damage | Integer |

|  |  |
| --- | --- |
| **Table : Challenges** | |
| Challenge ID | Integer |
| Challenge Name | Varchar 50 |
| Challenge Brief | Text |
| Is Completed | Boolean |
| Is Repeatable | Boolean |
| Is Unlocked | Boolean |

|  |  |
| --- | --- |
| **Table : Items** | |
| Item ID | Integer |
| Item Name | Varchar 50 |
| Destroyable | Boolean |
| Starting HP | Integer |

|  |  |
| --- | --- |
| **Table : Enemy** | |
| Enemy ID | Integer |
| Enemy Name | Varchar 50 |
| Starting HP | Integer |
| Difficulty Class | Integer |
| Low Damage | Integer |
| High Damage | Integer |

|  |  |
| --- | --- |
| **Table : Enemy Action** | |
| Action ID | Integer |
| Action Name | Varchar 50 |
| Enemy ID | Integer |
| Trigger Chance | Integer |
| Effect ID | Integer |

1. **Features breakdown & functions list**
   1. Register & Login

When app starts, check if a user is already registered locally, else login with FB / Google / Mail.

User can register via FB, Google, Mail or locally.

* 1. Multiplayer

On the main screen, player can choose if he wants to play solo / coop. It appears as a switching button

* 1. Personalize character (Main page)

Player can choose what gun is equipped

You can see best score (time and score)

* 1. Run game (endless)

A button on the bottom-right to run the game. Player starts in the middle of the screen with his selected weapon. Ammunitions and new weapons (only the unlocked one) frequently pop on the screen.

* 1. Unlocked weapons screen

Player can see unlocked weapons and a little description about it.

He can also see how many weapons he can still unlock.

1. **Convention**

The team will use exclusively English and will use CamelCase as naming convention.