**RS**

RICE SHOWER

***Thieves Racer***

***TECHNICAL DESIGN DOCUMENT***

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**TEAM MEMBERS**

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**1. Project goal**

**Online multiplayer**

Beside the normal offline mode, the game allows a maximum of fourplayers to be connected and play the co-op multiplayer mode. Each player’s progress is saved locally on their phone, the server will only manage the coordination of the game and must be always running. In case of maintenance, the server will be shut down and it’s not possible to play the game.

**2. Provided Services (beside the game)**

* **Customer support:** we’ll provide the player the assistance about technical issues like account management, device configurations and platform compatibility.
* **Forum:** we’ll create a place where the players can interact and help out between them. We also use other social platforms (Youtube, Twitter, Reddit...) to reach our players.
* **Payment system:** The game contains in-app purchases and we want to make sure the player can make transactions successfully.

**3. Client side**

**3.1 Hardware Requirements**

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The game will be released for mobile platform and requires internet connection to reach the server.

**3.2 Software Requirements**

The game will be available for both iOS and Android users, possibly with the latest versions of the software installed.

**4. Workload Estimation**

The game won’t need a lot of requirements to be played. The only element to be considered is the graphic which depends on the hardware of the client. The network will only be used to communicate with other players and will be used at the minimum.

**5. General Architecture**

**A screenshot of a video game

Description automatically generated with medium confidence5.1 Workload Capacity**

*steamdb.info*

Compared to some of other popular online co-op games, we can expect at most around a thousand players each day with a peak of 50k-100k players. The server must be able to handle at least hundreds of game sessions each hour. We’ll use a private virtual server to run our game. The server capacity will depend on the number of players and the position where they are connected.

**6. Connection**

**A group of cell phones

Description automatically generated with low confidence6.1 Global Infrastructure**

The devices will be connected through IP address. One player will act as host to allow other players to join his network. This process will be coordinated by the server, which also manage other hosts as well.

**Shape, rectangle

Description automatically generated6.2 Network Requirements**

The game will use the standard TCP/IP protocol so the user will need a mobile plan for internet connection, but it won’t use a lot of data.

**7. Delivery**

* The application will be available in Europe and US for mobile users.
* The language is english but it can be localized in other languages.
* There is no age restriction but the in-game purchases may be supervised the presence of an adult.
* There are no particular extra hardware/software required, so it will also run on older phones with older OS.

**7.1 Estimated Delivery Time**

As soon as we have implemented the frontend and backend sides of the game, the application will be published immediately.

**Graphical user interface

Description automatically generated with medium confidenceA picture containing graphical user interface

Description automatically generated7.2 Delivery Platform**

The game will be released on the Apple App Store and the Google Play Store for free on the initial release. The game will bring new contents constantly through updates.

**8. Cost Estimation**

|  |  |  |
| --- | --- | --- |
| **Description** | **Period** | **Price** |
| Google Play Store registration fee | One time | $ 25.00 |
| Apple Developer Program | Every Year | $ 99.00 |
| Virtual Server | Every month | $ 5.00 - $ 20.00 |
| CG Artist(s) / programmers | Every month | ~ $ 1500.00 |

Apart from these basic costs, Apple require to collect 30% of sales on the AppStore. If we are seriously trying to start a business as a startup company, there are many topics to be discussed with a tax consultant since the fiscal system (especially in this country) can be very aggressive.