



THIEVES

RACER

TECHNICAL DESIGN DOCUMENT

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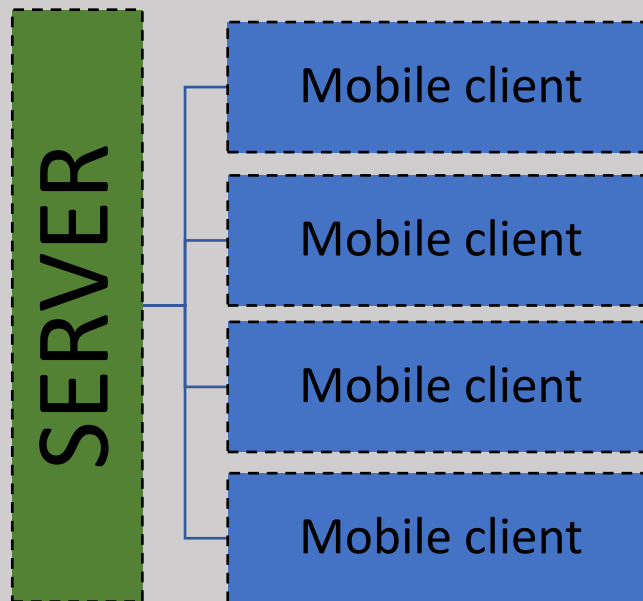


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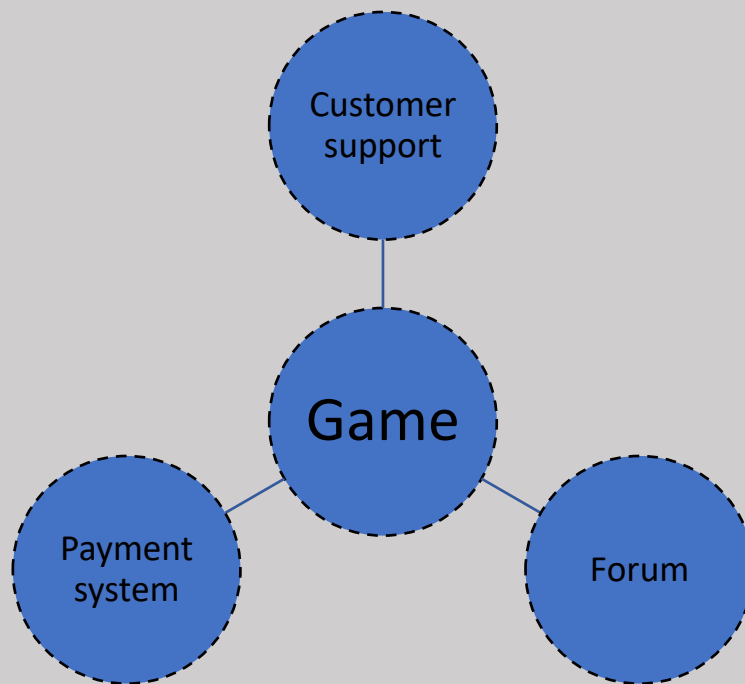
1. Project goal



Online multiplayer

Beside the normal offline mode, the game allows a maximum of four players 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.

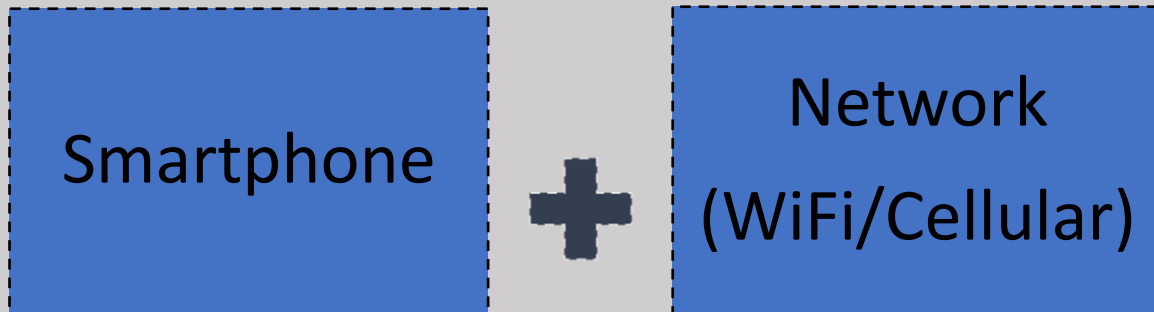
2. Provided Services (beside the game)



- **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



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

3.2 Software Requirements

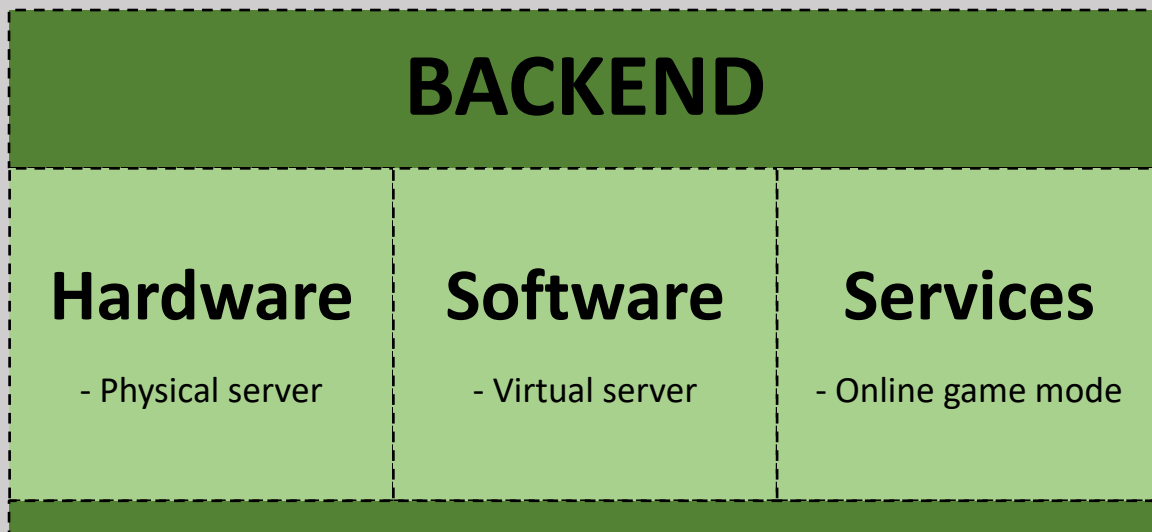
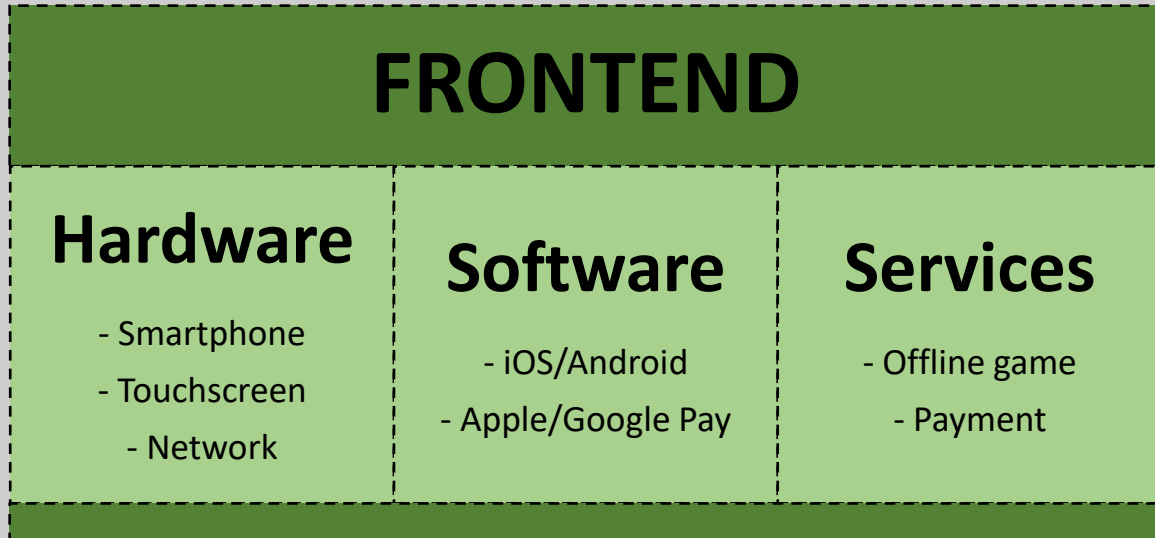


The game will be available for both iOS and Android users, possibly with the latest versions of the software installed.

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



5.1 Workload Capacity

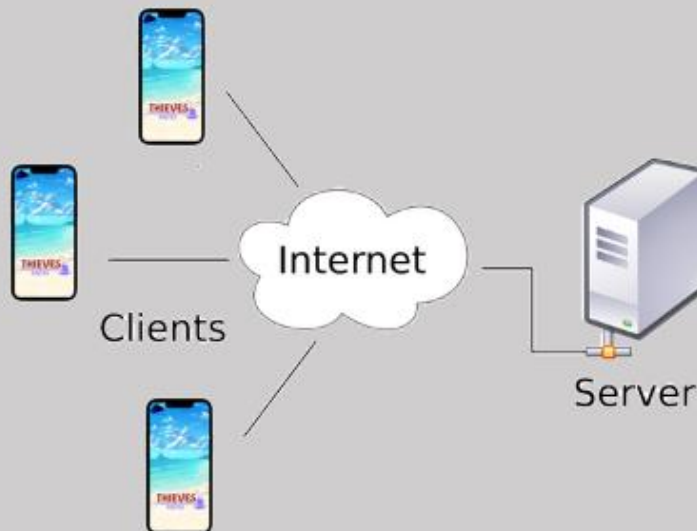
Among Us released on 16 November 2018 	7,863 players right now	7,863 24-hour peak	447,476 all-time peak 2 years ago
Portal 2 released on 18 April 2011 	1,563 players right now	2,155 24-hour peak	98,460 all-time peak 11 years ago
Don't Starve Together released on 21 April 2016 	25,855 players right now	26,588 24-hour peak	68,418 all-time peak 3 years ago
Sea of Thieves released on 3 June 2020 	12,481 players right now	13,941 24-hour peak	66,906 all-time peak 2 years ago
Cuphead released on 29 September 2017 	1,257 players right now	1,522 24-hour peak	19,026 all-time peak 5 years ago
Deceit released on 3 March 2017 	1,014 players right now	1,252 24-hour peak	16,923 all-time peak 5 years ago

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

6.1 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.

6.2 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.

7.2 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.