# Functional Requirements

## User

A user can register to the game using Google account

A user can log-in to the game using Google account

A character has attributes

A player can own items

A character can die after Kill action

A player can collect items from the monster after kill

A player can purchase in-app product

## Game Object

A game object has a type and inherits all its properties

Each game object has its own inventory

A game object type has a set of attributes

A game object type has a set of allowed Actions

## Actions

Kill object at a location

Equip object from player’s inventory to a slot

Use object from player’s inventory

Buy object from a shop

Collect object’s inventory after Kill

## Location

The server stores a list of predefined locations

Each location can contain a game object

A game object can independently exist at many locations

A client can get nearby game locations with their associated objects

If user kills an object at a location, the object will be hidden for a period

## Server

The server must verify player’s Google account

The server must verify in-app purchase

The server must persist player’s profile between sessions

The server must provide API to clients

The server should provide API for administration

# Non-functional requirements

The database should use caching

The server uses Java 8

The server runs on Debian 8

The game locations should be spatially indexed

The server should be scalable