Raees Aamir

Matriculation number: s1617910

Abstract

A document containing design decisions about Coinz. A map based game where players have to collect cryptocurrency coins. Features of the app, extra features and the timescale are all included.

DESIGN

Informatics Large Practical

INDEX TO BE GENERATED

Game summary:

* Players collect coins scattered around the central area
* App is considered a prototype that a team can further develop
* Location of coins are specified on map, they are collected by getting near to their location. (What if the player’s inventory is full? Drop/trade/bank)
* Each map has 50 coins
* A new map is released every day. (Do we generate the map or is the geo-json data given to us?)
* Four different coins: Penny (PENY), Dollar (DOLR), Shil (SHIL), Quid (QUID).
* Fluctuate relative to the value another currency just like real currencies do.
* That other currency is GOLD.
* What algorithm are we going to use to handle coin fluctuations ? Is it going to be a simulation or based on real data?
* Every coin on a map has a value > 0 but < 10 of its currency (relative to GOLD) E.g 5.72384765123 DOLR
* What happens to coins from an older map?

Project timescale from week 2 to week 13

* What have I done so far
* What still remains to be done
* Order in which you can complete a well-engineered, well-tested and well-documented project.

Justification and discussion on:

*Engineering*

* Programming language chosen
* API level chosen

*Unit Testing*

* Framework chosen
* Types of tests to implement

*Systems level design*

* *Explore alternatives for databases, cloud host (other than EC2)*
* *Security – DON’T TRUST THE CLIENT. Login encryption/decryption methods*
* *Load balancers (if the game became super popular), additional servers*

*Game design*

* Extra features
* Features

Define extra features:

* Coin trading
* Backend server (for login, passing information to client, getting information from database)
* Backend server host. E.g. EC2