Software Architecture & Design Pattern Document

What's HappNin

Lauren Finley, David Lucero, Sumaiya Rashid,
Yavuz Kocoglu,Rehan Ayoub, Andres Suarez, Zack Luckman

Bashes

May 6, 2018

Table of Contents

Architecture Design

As demonstrated below, What's HappeNin utilizes a Model-View-Presenter (MVP) form of architecture design. In this architecture design the "model" objects represent activities which contain access to our 3 databases. Each object handles specific variables such as username and passwords vs profile images. "Presenter" objects within this design serve as "business-logic" activities which allow us to pass arguments to our model activities. Finally the last type of object observed within this architecture model is the "view" activities. These activities call xml files from Android Studio and set up the user interface. Furthermore, these objects shall be used to take in arguments which will be input by the client.

Design Pattern

What's HappNin utilizes 2 different types of creational design patterns when managing the creation of objects. We used one form of design pattern which is utilized by What's HappNin is the Singleton pattern. This pattern is mainly being used when Android Studio sends data over to our Firebase database. Singleton patterns restrict the instantiation of an object and ensures that only one instance of the object exists in the java virtual machine. In other words, Android Studio uses this pattern in order to maintain control of the objects being created when adding data to our 3 individual databases. This 'Validate' method utilizes the FireBase Authenticate Database by assigning an instance of the database to a FireBase object 'mAuth'. Since changes to the database may be made through the object only one instance of the database can be created at a time. This is just one example of where we access the database using the singleton desing pattern.