Innopolis University, 2020
[S20] Software Systems Design

Madina Gafarova   m.gafarova@innopolis.ru
Andrey Volkov   an.volkov@innopolis.ru
Gleb Petrakov   g.petrakov@innopolis.ru
Aliya Zagidullina   a.zagidullina@innopolis.ru
Valeriya Vertash   v.vertash@innopolis.ru

Assignment 3 Report

Project context

The chosen project is #3 "iPad Restaurant Application". The chosen pattern is the builder pattern.

The builder pattern was chosen since we may have multiple steps for creating objects and construction steps require to define many attributes (telescoping constructor).

In our improvised burger restaurant, there are only burgers and cold drinks available, but you may construct your own burger (different buns, sauces, cheese types, etc.) or drink. Once you are done with creating your own type of burger, it may be sent to the kitchen for our chef to make it. If you are not sure what to choose, we have some presets for you to choose between.

How to run

Use Gradle for run tests.
```
./gradlew clean test
```

Implementation details

Class structure

Since we are the restaurant, we must have a menu with respective menu items within. They are represented by classes `Menu` and `MenuItem` respectively. `MenuItem` is immutable once created with `MenuItemBuilder`.

Two possible menu position types are represented with `Burger` and `ColdDrink` classes, extended from `MenuItem`. You must use `BurgerBuilder` and `ColdDrinkBuilder` to create `Burger` or `ColdDrink` for them to become immutable parts of your order.

UML Diagram