## **Assignment 2 - Developer Documentation:**

# **Class and Algorithm Explanation:**

#### Model:

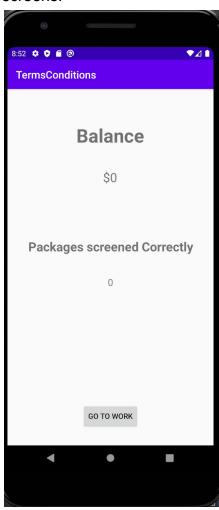
- Basic Item:
  - Constructor:
    - Randomly chooses an item size, the actual item and the colour of the item
    - Also assigns a
  - toString: Prints a description of the randomly chosen item chosen in the constructor.
- Cinematic:
  - The super class assigns 4 scenario options and 2 choices for each scenario.
  - Constructor
    - Randomly chooses a scenario and thus its associated choices, to display to the user.
- Game Object:
  - The super class defines the common methods and variables shared by all GameObject's.
- Order:
  - Constructor:
    - Fills the ordered array (determining the actual item ordering in the box) with random items generated by the Basic Item class.
    - Fills the packed array (check-list for the actual box) with mismatching or matching items determined randomly.
      - If the item is determined to be non-matching a new item is created by Basic Item.
- Order Item:
  - The super class assigns the possible item colours, possible items found in a box and the possible size of each item, with three set values respectively.

### View:

- Cinematic Activity:
  - o Responsible for generating scenarios and displaying them to the user.
  - Generating and listening to the button responses for the purpose of keeping track of cinematic choices.
- Controller:
  - Controller is an application thus all activities have permissions to view its variables, which centralises the main variables needed between the different main classes.

- This class also centralises a few other simple methods such as generating a new order.
- Lobby Activity:
  - This is a view with a single button that displays user statistics, telling the user how well they are doing.
  - This class also allows you to pause before 'heading back to work'.
- Main Activity:
  - This class is responsible for the displaying of buttons and button listeners of the main game.
  - This class also keeps a timer (currently counting down from 30) that tracks the length of a 'work day'.

What the game currently looks like - The game has three different "activities" screens:





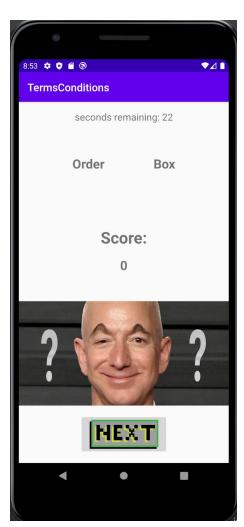


Figure 2.



Figure 3.

**Figure One:** Shows the lobby screen that exists to display user statistics; tells you how well you've done so far, and launches you straight into the game.

**Figure Two:** Shows the game itself, where new boxes are generated by pushing the next box button. You can then select valid or invalid by comparing the box manifest and the order list. If you correctly identify the validity of the order your score is incremented and daddy bezos smiles at you.

**Figure Three:** Shows the cinematic screen. On this screen you are told how much you earnt and are presented with a troubling scenario, presently the buttons don't do anything except direct you back to the lobby.

**Future Development:** There are three main areas for development: graphical design and UI, cinematic and scenario generation, and gameplay nuance.

## **Graphical Design and UI:**

The game currently runs with a very simple UI consisting of mostly text with a couple of buttons. For our beta implementation we would like to introduce a polished set of sprites and graphical changes, where items in our game will be manipulatable. This will add complexity to the game as now items will be visually compared to a list rather than simply comparing two lists.

#### **Cinematic and Scenario Generation:**

At the moment selecting a choice in association with a scenario results in no effect, the buttons only end the cinematic. Starting with the beta, one of the main things that will make the game compelling is your scenario decision will matter and carry throughout the game. We plan to implement this by generating a tree structure (NB: not strictly binary), where the next tree level will be generated at the beginning of each cinematic. Cinematics can be generated ahead of time with a specific scenario being pre-generated and its opposing branch initialised, but with a null scenario that will be constructed upon arrival. For example, if you choose not to take your son to the doctors (a specific scenario given in the game) and save your money, the game will now set all of the left branches, that are two layers down, to gradually worsen your son's condition, so that there is a 50% chance that your short term decision will come back to affect you later in the story. In the aforementioned case the other branches of the tree, not already occupied, will be filled with cinematics with null scenarios to be filled in later.

### **Gameplay Nuance:**

Gameplay nuance is one of the core mechanics of this game. Throughout this game the gameplay will gradually increase in difficulty through the asinine implementation of rules to add difficulty, which will be done on a semi random basis. A set of rules will be implemented, added and explained in the corresponding round. For example, for one day blue items are able to be counted as red items, enabling the box to be correct if the list requires red items though only blue items are present in the box, but not the other way around. Order sizes will also increase in size, throughout the game to add another aspect of difficulty.

Between the increased difficulty at work and the pressure from the emotional challenges at home, driving you to attempt to earn more money in order to look after your family, our hope is the game will become increasingly compelling and highlight the poor treatment of workers in many large businesses such as amazon. To highlight this, many of our scenario choices will be harsh real life storylines. Upsetting facts about late stage capitalism and current events will be displayed between rounds.