Phase 2 Rough Draft

Please read this entire document carefully and discuss it with your team.

For Phase 2, you and your team will do the following:

1. Finish your games. For Phase 1, a number of groups created simple games with minimal complexity and a rudimentary user interface. Now is the time to make your games look good. Try to make the games look and play like something you would want to download onto your own phone.
2. When you receive feedback for Phase 1, please implement any suggestions and refactor where necessary. The feedback is intended to help you get as good a mark as possible for Phase 2. While you are waiting for the feedback, feel free to revisit the **code smells website**
3. (Links to an external site.)
4. , to see if you can find and fix any codes smells that appeared in your Phase 1 code and read more about SOLID.
5. One way to test your design is to see how easy it is to extend it. For Phase 2, you will extend your project by doing at least two of the following:
    - Turning each level into an independent game with multiple (or infinitely many) levels. The starting screen will allow the user to choose which game they want to play. The statistics for each game will be kept separately, although statistics within the same game will continue to accumulate.
    - You will have the option for two users to log in at the same time. They will take turns playing each game by passing the phone back and forth. Your game will tell them whose turn it is and track their scores separately, so they can compete. Also, your game will

randomly choose one of your three games to play next after both players have had a chance to play the same game.
    - Add more games and extra features that continue across games. For example, you can have a user collect different pictures at randomly determined points in each game. They can view these pictures and select one to trade for extra points (or lives, or power, etc.) at any time. These pictures should persist across levels.
    - Make a scoreboard with extra features. One feature will be that the user chooses whether or not to store their score immediately after they finish a game. Other features you can choose, such as: you can have the user choose to see the ranking based on any of your three statistics. Or you can allow the user the choice of whether or not to save their score on the scoreboard and ask them for the name that should be displayed beside the score. You can also include statistics like the current user's ranking for this day/week/month/year, which percentile they are in, how their current score compared to their personal lifetime average or their previous three scores.
    - Create hidden actions that the user can take to prematurely finish each level and gain extra bonus points before beginning the next level. This can include bonus levels where it is easier to earn extra points, hidden rounds within a level, or combinations of input that, when entered at the correct time, will result in unexpected score increases.
    - Create an instant replay that the user can choose to view after playing a game. (Do this for at least one of your "levels" from Phase 1.)
    - Something else that is equal in complexity to the above, and demonstrates that you were able to extend your program in at least two ways.
6. Find ways to personalize your program so that it looks different from every other group. **After the term is over,** you may want to post your code to GitHub and/or upload your app to Google Play so that you can start building a portfolio. Add features that you might want to brag about during an interview.

Deliverables (**inside your phase2 folder!**):

- README file with setup instructions,
- any config files required

- a file called design.pdf with a uml diagram of your program **or** a series of pdf files called design1.pdf, design2.pdf, ... that contain uml diagrams of each part of your program.
- The code for your complete and functional program.

Presentation Info

The goal of the presentation is to help the graders understand your code and how much you have learned since Phase 1. To do this each team member will:

(i) present for 2 minutes on one of the following: a demo of the program, a code walk through of a major system in code, description of design patterns and SOLID principle that you implemented, a major decision or change that you made and why)

(ii) answer any questions that the markers still have about your program when you finish the formal presentation.

You will only have 30 minutes for set-up, presentation, and question-and-answer. Please arrive with one laptop turned on and loaded with Android Studio, a back-up laptop, and a connector to connect your laptop to an HDMI cable.