

Final Submission : Google Summer of Code 2016

Systers Project: PowerUp ANDROID

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[Github profile](#)

I have included the links to various work done throughout the Summer:

1. **Introduction:** Power up is a female empowerment educational app that allows young girls (12 to 14) to learn about reproductive health and self-esteem by navigating the life of their avatar. Through this project, I hope to implement features that would serve as better options for educating preadolescents who are at risk for pregnancy and spread of sexually transmitted infection(STI) due to lack of information about the associated risks and responsibilities.

Link to project proposal: [PowerUp Android Proposal](#)

Link to project code: [Github Repo](#)

Mentor: [Chhavi P. Gupta](#)

Project Manager: [Ihudiya Finda Ogburu](#)

Link to contributions by me: [Contributions to repo](#)

2. **Blog:** [Blog on community bonding](#)

3. **Link to timelines:**

- [Timeline before mid-term](#)
- [Timeline after mid-term](#)

4. **Link to documentation:**

- [Documentation before mid-term](#)
- [Documentation after mid-term](#)

5. **Link to wiki:** [Systers Profile](#)

6. Link to weekly submission:

- [Week 1: 23 May- 29 May](#)
- [Week 2: 30 May-5 June](#)
- [Week 3: 6 June-12 June](#)
- [Week 4: 13 June-19 June](#)
- [Week 5: 20 June-26 June](#)
- [Week 6: 27 June-3 July](#)
- [Week 7: 4 July-10 July](#)
- [Week 8: 11 July-17 July](#)
- [Week 9: 18 July-24 July](#)
- [Week 10: 25 July-31 July](#)
- [Week 11: 1 Aug-7 Aug](#)
- [Week 12: 8 Aug-14 Aug](#)
- [Week 13: 15 Aug-21 Aug](#)

7. List of commits with details

Pull Request	Description	Status
Splash Screen added	1. Added a splash screen which will appear for 5 seconds at the start of the app	Open
Gitignore file modified	1. Modified .gitignore file so that wrong files don't get committed to the project.	Closed
Code Clean up	1. Code cleanup 2. Removing unused drawables and hard coded strings and integers	Merged
Dressing Room 2 and Modified Avatar	1. Another dressing room from which user can get clothes, hair and accessories. 2. On clicking on any feature in dressing room 2, another activity opens up in which you can select a feature variant. 3. Modified the final avatar screen that comes after you choose avatar. 4. Added landscape xmls	Closed
New Drawables	1. Added the new features which includes : hair, clothes, accessories. 2. These features have transparent background and are re-sized according to the screen.	Merged
Power and Health bars	1. Added power and health bars with icons in GameActivity and DressingRoom2 using IconRoundCornerProgressB	Merged

	ar. - These include : healing, strength, invisibility, telepathy. They are randomly initialized. - Linked these with database.	
Dressing Room Modified	- Added store on map. - Displayed existing avatar in dressing room 2 (as in game activity). - Added a screen to show final avatar after continue button in select feature activity. - Added continue button in screen showing final avatar after select feature activity which navigates to map. - Added back button in screen showing final avatar after select feature activity to map which goes back to selecting feature, in case user changes mind. - Removed hard coded strings and dimens.	Merged
Landscape Layout and Avatar Fixed	- Landscape layout for game activity developed. - Avatar's position in landscape mode fixed. - Added home button in map activity. - Minor code fixing (including dynamic intent creation and removing hard coded strings).	Merged
UI changes in Dressing Room 1	Changed the UI of Dressing Room 1, which appears on starting a new game similar to iOS.	Merged

<u>UI changes in Dressing room 2</u>	Changed the UI of Dressing Room 2, from which user can purchase items similar to iOS.	Merged
<u>Database Changes for Dressing room 2</u>	The following tables have been added to database for Dressing Room 2 implementations: 1. Clothes 2. Hair 3. Accessories These tables have the following attributes : ID, Name, Points, Purchased.	Merged
<u>Labelling purchased item in dressing room 2</u>	1. Database functions to set and get purchased items 2. UI changes to label item as purchased 3. Implementation of labeling item as purchased.	Merged
<u>Summary Screen Added and Bug Fixing</u>	1. Added a summary screen at the end of each scenario which displays points. 2. Added check in SelectFeatureActivity if your points are less than item you want to purchase, a toast is shown. 3. Displayed points in Dressing Room Activity.	Closed
<u>Check points before purchasing</u>	1. Check points before purchasing an item. If points required to buy an item is more than current points of user, a toast is shown.	Merged
<u>Avatar Modified</u>	1. Avatar modified to show accessories purchased on it in final avatar scene.	Merged then Reverted

Points Displayed	1. Current Points are displayed in Dressing Room 2 and Select Feature activity in the "Karma" box.	Merged
Summary Screen added	1. Summary Screen added after each scenario which displays current points.	Merged
Avatar Modified and Database Changes	1. Avatar modified to show accessories purchased on it in final avatar scene. 2. Database changes to show accessories and save accessories in db.	Merged

Summary: This summer with Google Summer of Code has been amazing for me, with a huge amount of learning, interaction with people from all around the world and a lot of fun. When I started with the project it had a start screen, one dressing room, a map activity and a scenario activity. Each screen only had a portrait version. Also the initial database included questions, answers, scenarios and avatar.

I started out with code cleanup and removing unused drawables and hard coded strings and integers from the java and xml files. Then designing of Dressing Room 2 was done which included making UI screens, clothes, hairstyles and accessories for the avatar. Power bars on the footer has also been added. Change in database was done to accommodate the clothes, hairstyles and accessories and also the power feature. The next task was to calculate and display points accumulated by the user during the game and purchasing of items from Dressing Room 2. Another screen was added after every scenario to display current scenario and points.

CHALLENGING TASKS:

- 1. Understanding the existing code:** As this was an existing project developed in GSoC 2015, it took me a little time to get acquainted with the previous code and understand the flow of code.
- 2. Understanding the database:** This project had existing database in SQLite. So I had to read and go through the code iteratively to understand the linking of database with the code. Also, the database had to be updated to store the points required to buy an item (cloth/ hairstyle/ accessory) and to mark if the item is already purchased or not. This was done by maintaining a Google Doc with the iOS developer to keep database entries similar across both the platforms. The discussion can be viewed on the doc and comments can be added for further improvement of the database: https://docs.google.com/document/d/190tsng0R511eFXQI_oJSF78ZnCL1uKv17EUKZGzEwY/edit?usp=sharing
- 3. Designing the features:** A lot of features had to be developed so that user has wider choices. It was a little difficult (but definitely fun!) to work with images and colouring them and creating variants. Also these images were worked upon to have appropriate and same sizes and transparent background. I had to go through a lot of designs to come up with the created accessories like bags, goggles, hats and necklaces.
- 4. Github:** Working on git has always been messy for me. I have made a lot of mistakes while handling branches and making pull requests. Thankfully, my mentor helped me a lot with git!
- 5. Sync with iOS:** As there is a parallel iOS project for Powerup, I had to work closely with them and make sure that both the platforms are in sync and as similar as possible. Initially, the UI of some screens in Android was different from iOS version. This can be seen in Documentation for First Half. To remain in sync with iOS, the UI of Dressing Room 1 and Dressing Room 2 had to be changed according to the screenshots provided by the iOS developer. Although the functionalities remained the same, the look changed entirely.

WORK LEFT TO LAUNCH THE APPLICATION:

1. **Animation and Sound:** Adding small animations to make the game more lively and interesting. For eg, the avatar can be animated to move up and down in the conversation screen, sound effect in start of game or end of a scenario, etc.
2. **More Scenarios:** Since there are only two scenarios in the project currently, more scenarios need to be added by the curriculum providers. This can be simply adding the conversation and its related data in the database tables: Scenario, Questions and Answers.
3. **More Items in Dressing Room 2:** New items like clothes, hairstyle and accessories(hat, glasses, necklace and bag currently) can be added to the project by adding the image resource in drawables folder and increasing the total count in Session History. Also you need to add this item in the appropriate database table with associated points.
4. **Point Earning Mechanism:** On adding the new scenarios(conversations) and new items in the dressing room 2, points need to be associated with each answer and each item to be purchased.
5. **Health and Power Feature:** The Health and Powers tab at the bottom would change according to the decisions made by the Avatar while playing the game.
6. **Testing on different devices:** Before launch of the application, the application needs to be tested on various screen sizes.