**Group:** Pa Vang, Henrique Martha de Oliveira, and Subhransu (Bron) Nanda

**SEIS-610 Elaboration Deliverable #1- Play GreenGo**

**Project Vision Summary:** GreenGo is a fun educational and interaction game to motivate and incentivize users to properly recycle alkaline batteries for IOS and Android phone users. Users will set up an account, create an avatar then enter the game through a map which is the user's geographical location or the user could change it to augmented reality (AR) mode. GreenGo will alert its users every time they pass by a battery collection point. When the users bring their used batteries to the collection site then take a picture of their batteries using the phone camera they activate a bunny hunt game, which will give them points. Each bunny collected is 1 point. For every 20 points accumulated, users will be able to redeem a coupon to various eco-friendly products/coupons of their choice, level up in the game and potentially open more features to get more points.

**Selected User story:** As a kid I want to play the bunny game so I can get a lot of points and level up.

**Risk Identified in Inception Project**

1. Engineers have no experience writing python programs.
   1. Transactions of coupons should be a main concern of the app.
2. Engineers have no experience with IOS or Android security and process.
3. Engineers have no experience saving data storage.
4. Engineers have no experience with GUI.
5. Engineers have limited knowledge with how GPS works.
6. Engineers have limited experience with recycling or environmental knowledge.
7. Engineers have no experience with data security.
   1. Users and business partners share private information on themselves that need to be protected.

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| **Cast of Characters** | |
| **Person** | **Character** |
| Henrique | General |
| Pa | Kid |
| Bron | Artist |
| Benji | Clerk |
| Atom | Guide |
| Heather | Router |
| David | Photographer |
| Joe | Croupier |

**Setting:**

*Three aspirants to software engineering, Pa, Henrique and Bron, are trying to develop their first software. The conception phase went quite well but now they need to figure out how to draft the program architecture.*

Pa: “We should start this with some of our user stories, Henrique and Bron. Which one should we pick?”

Henrique: “I’d choose the kid story. I believe many of our users will be kids, since they are open to new apps, enjoy gaming, love to get prizes and have better awareness of environmental causes. What do you think?”

Bron: “I agree, I think the kid story would be fun and cool.”

Pa: “Sounds good. Let’s see what happens.”

Bron: “Who should be in our play?”

Pa: “Based on our last class, we should have a General to receive and distribute tasks, an Artist to interface with the user, a Clerk to store information, a Guide to handle the geo localization system.”

Henrique: “And a Croupier to handle the bunny game.”

Pa: “Great! Let’s pretend to be the software to have a better understanding and make this fun. I will pretend to be the kid.”

Henrique: “And I can be the software, you can call me General. Bron, you can be the Artist and my friend Atom here, can be our Bouncer. Atom, could you come here?”

Bron: “I’m already!”

Atom: “Same here- I want to make sure you, Bron and Pa pass your software engineering class with flying colors.”

Pa: “To make things easier for us, let’s call each other by our roles, remember I am the Kid, Henrique you are the General, and Bron you are the Artist. We could figure out the rest as we go.”

Henrique: “Time to start.”

**Kid:** “General, I want to play GreenGo.”

**General:** “Artist, show the Kid how to create an account.”

**Artist:** “Kid, you need to create an account, and these are the date we need from you.”

**Kid:** “General, here are my login information.”

**General:** “Hm, looks like we need a Clerk and a Guide, (*Henrique notices Benji and Atom sitting in the corner)* Benji can you come here to be our clerk and Atom can you be our Guide?”

Benji: “Will do.”

Atom: “Sure.”

**General:** “Awesome! Alright, Artist, show the Kid the different options.”

**Artist:** “Welcome to Green Go, please sign in.”

**Kid:** “Here is my account information to sign in.”

**General:** “Clerk, please store Kid’s information.”

**Clerk:** “One moment, I need to research more on data storage and security first.... Ok General, account stored and protected.”

**General: “**Artist, inform the Kid we are ready for him to play.”

**Artist:** “Hey Kid, we are ready. Press play when you want to start the game.”

**Kid:** “I want to start playing.”

**General:** “Guide, could you show where to find a recycling station and playing zone.”

**Guide**: “Sure General, I am not too sure on how GUI works, but I will research on YouTube. Ahh here we go, here we have the region map.”

**General:** “Artist, display the map to the kid.”

**Artist:** “Hey kid, here are the sites where you can bring your used batteries and activate the game.”

**Kid:** “General, thanks for the map, but how do I get there?”

**Pa:** “Stop, we’ll need a Router to set the routes to the recycling stations”

**Henrique and Bron:** “Agreed.”

Henrique: *(notices their friends Heather, David and Joe walking by)* “Hmm oh there is our friends, Heather, David and Joe! Heather can you be our Router? We need someone to process pictures too, David, could you be our Photographer? And Joe could you be our Croupier? When I call your roles, you answer.”

Heather: “Challenge Accepted.”

David: “I guess I could try.”

Joe: “Sounds fun.”

**General:** “Router, define the nearest way to the recycling station and keep updating the kids position.”

**Router:** “Here is the route and I have an eye on the kid.”

**General:** “Artist, show the route to the kid and remind him to bring used batteries.”

**Artist:** “Kid, you are here, and this is your way to the recycling station. We’ll guide through there. Don’t forget to bring used batteries.”

**Kid:** “Cool!”

**Kid:** “General, I am in. How do I start a play?

**General:** “Artist, inform the kid how to start a game.”

**Artist:** “Kid, to start a play, scan/take a picture of the batteries you are disposing and scan the QR code of the recycling bin.”

**Kid:** “That’s easy. General, here are the pictures.”

**General:** “Hey Photographer! Please check process these pictures.”

**Photographer:** “Pictures show ten batteries and Station Vernon Av.”

**General:** “Croupier, launch 10 bunnies.”

**Croupier:** “Fun time! Kid, try to catch these bunnies!”

**Kid:** “Cool, I’ll hunt you all.”

**Croupier:** “General! All bunnies were captured by the kid. He receives 10 points.

**General:** “Clerk, please register 10 points on the kid account.”

**Clerk:** “It’s done General.”

**General:** “Artist, inform the kid he received 10 points.”

**Artist:** “Kid, you are amazing. You hunted all 10 bunnies and received 10 points. We want to see you back very soon!”

**Kid:** “Bye!”

Henrique: “Thank you everyone! I think we have a better idea of our project now and analysis workflow.”

Bron: “Great job team!”