

GIZMO

CSYE 6200

November 2023

1 Question 1

The team name that we've chosen is **GIZMO** which refers to the idea that we're working on for our project.

2 Question 2

The team members of Gizmo are listed as follows:

Sampurna	lnu.samp@northeastern.edu	002831804
Parichay Didwania	didwania.pa@northeastern.edu	002247668
Pranay Prasad Pindi	pindi.p@northeastern.edu	002899164

3 Question 3

In today's world, there's a supply of electronic devices that outgrows the requirements of the general public. An average customer, changes their mobile phone every other year, which even after being discarded, is still quite operational for other people. This in turn raises the carbon footprint of every person which can be easily controlled.

Technology as we know has always been growing at a rapid pace which in turn increases the amount of waste generated by consumers as everyone wants to be updated with the latest and greatest that the industry has to offer. We can observe this pattern across every electronic device, this in turn leads to waste fullness that can be easily avoided if people sell the devices instead of discarding them.

Users in the current market are always looking for a competitive price and the best value for their money, having a marketplace where you can buy refurbished or first hand electronic gadgets gives the users a wide variety of collection to chose from. Working with sellers also poses a problem of verifying the product before delivering it to the customer. This is quite a serious problem as it directly affects the experience of the customer with the platform and might even lead to poor client retention.

To address all these problems, we're creating a marketplace for potential sellers and buyers.

4 Question 4

To address the above problem, we intend to provide a marketplace to the general public that allows anyone to sell their electronic devices to the potential customers around the globe. This service will be accessible to every potential buyer that registers on the platform and can be guaranteed that the product they see online is what they will receive.

The idea consists of an application that provides login and registration for customers, sellers and an admin. All the inventory related to electronic devices and profile related data will be stored in a MongoDB database which will be accessed by the application as and when required.

The admin will have full access to all the functionalities provided by the application such as, modifying inventory, customer profile data, seller profile data and so on. The customer will have access to view and buy all the items that are available in the stock. Each customer will have a order history which will allow them to view their previously purchased items and the sellers of those items. The sellers will have access to list the items they wish to sell on the application. They will also be provided with a feature to track the number of purchases made on their products. The customers will be allowed to give a rating for the product they purchased which will be averaged out and visible to all the other customers before they buy the same product.

5 Question 5

The concepts that will be covered throughout the project are as follows:

- **JavaFX** : This will be used to create frames that will be used for interaction by the different users present on the platform
- **Class Definition** : These classes will act as DTO's and help us to import data from our database and structure the project.
- **Inheritance/Polymorphism** : When defining classes such as Products and User, these classes will act as a super class from which we can inherit different types of users i.e. Admin, Seller, Customer, Mobiles, Laptops, Headphones etc
- **Abstract Classes/Interface** : Different types of Users and products will be inherited from abstract classes that will be created with specific method signatures. Once inherited, each type of user or product will have their own implementation of these methods.
- **Lists** :When dealing with similar data that can be imported from DB as an array of objects, lists will be useful to handle, sort, filter and perform actions on with an array of these items.
- **Generics** :Aside from ArrayLists, other generics such as generic classes will be used to implement certain aspects of the project.

6 Question 6

Here are the list of tools that we'll be using through out the duration of this project

- Eclipse
- Git & Github
- Scene Builder
- Documentation Tools: Google Docs, LaTeX

7 Question 7

The week based schedule for the project is as follows

- **Milestone 1 - 11th November 2023**

- MongoDB setup and connection
- create classes for dtos (data transfer objects) eg. Admin,
- Sellers, Customers, Products, Carts and so on.
- Login and registration logic for admin, customers and sellers
- UI for login and registration

- **Milestone 2 - 18th November 2023**

- UI for main customer page (landing page), search page, product page
- Logic for main customer page, search page and product page

- **Milestone 3 - 25th November 2023**

- UI for main seller page (landing page), listing page, product page.
- Logic for main seller page, search page and product page

- **Milestone 4 - 2nd December 2023**

- UI for main admin page (landing page), seller profile modification, customer profile modification, inventory modification
- logic for main admin page, seller profile modification, customer profile modification, inventory modification

- **Milestone 5 - 5th December 2023**

- Manual testing and bug fixes