

Challenge

Store and Manipulate Objects Using Ordered Collections

Implementation Environment

- The practice or challenge must be done in the IntelliJ IDE.
- Click here to install [IntelliJ](#)
- You must have access to [GitLab](#).
- Install [git](#) to be able to clone and push code to the repository.
- You must be familiar with forking and cloning a git repository.

Mobile Service


Imagine that you wish to purchase a mobile phone with specifications including the brand name, cost, screen size, battery life, storage space, and camera pixel count. You have a list of the latest models available. Create a program that performs the following activities:

1. Find phones of a particular brand.
2. Find phones that cost \$500 and above.
3. Find phones that have a camera specification of 12 MP or more.

CHALLENGE



Instructions for the Challenge

- Click on the [boilerplate](#).
- Fork the boilerplate using the fork button 
- Select your namespace to fork the project.
- Clone the project into your local system.
- Open the project in the IntelliJ IDE.
- Work on the solution.
- Execute the test cases given in the test folder.
- Push the solution to git.

Tasks

- Define the `Mobile` class and its attributes like, `brandName`, `cost`, `screenSize`, `batteryLife`, etc.
- Generate Getter/Setter for all the attributes.
- Override the `toString()` method in the `Mobile` class.
- In the `MobileStore` class:
 - Create a list of type `Mobile`.
 - Read the `mobile.csv` file line by line, store the data in the respective attribute of the `Mobile` class by calling the setter method, and return the list of `Mobile`. Write the logic in the given method below:

```
public List<Mobile> readMobileData(String fileName)
```

Tasks (cont'd)

- Given a brand name as input, return the list of all mobiles of that brand. Write the logic in the method given below.

```
public List<Mobile> findPhoneByBrand(String brandName)
```

- Iterate through the list of mobile objects and return the phone that costs more than \$500. Write the logic in the method given below and return the list.

```
public List<Mobile> findPhoneCostMoreThan$500 ()
```

Tasks (cont'd)

- Iterate through the list of mobile objects and return the phone that has a pixel count greater than 12MP. Write the logic in the method given below and return the list.

```
public List<Mobile> findPhonePixelMoreThan12MP()
```

Note: The `mobile.csv` file must be read only once, and the result must be stored in a List.