Assignment 2: Dynamic Appification Android App

Problem Statement:
Continuing from the **Assingment-1** scenario, you need to implement the following computations:

1. Cheapest fruit
2. Costliest fruit
3. Fruit with lowest availbility
4. Fruit with highest availability

Note: Assume that all the prices and quantities are in same unit.

Implement these computations on both sides: Android App (local computation) and Server (remote computation). Based on the mobile device parameters such as low battery and low RAM availbility, perform the computation on server otherwise on mobile device.

Measure total time taken to perform the task:
a. if computation is on server
b. if computation is on mobile device

Both cases include the time for decision making (measuring mobile parameters and decide to move computation between mobile and server)

Please note:
You will be graded for:
Functionality - being able to perform the said operations on the web and the mobile device.
You will not be graded for:
Aesthetics - keep it as simple as possible, specially when it comes to making a GUI.

Marking Scheme (tentative):
The Server and App parts will carry 25% each. Parameter measurement and decision making will carry 50%.

On the app side, you have to show the contents in a clean, understandable manner (simplicity is highly appreciated and recommended, but not in trade with functionality). Avoid spending time on styling the page(s).

Submission:
Each of you are supposed to submit two separate Zip files (the files "must be **ZIP ONLY**", we do not guarantee your assignment getting graded if you use any other file format). One file should contain the code for your Android App, while the other should carry the code to be deployed on the server. If you are using any third party libraries, or making JSON/XML files as your persistent option, make sure you include the same in the server code file.

The files **MUST** adhere to the following naming conventions:
<Your Roll Number>_AppCode_Assgn2.zip
<Your Roll Number>_ServerCode_Assgn2.zip
For example, if your Roll Number is 13111164, your files must be named as "*13111164_AppCode_Assgn2.zip*" and "*13111164_ServerCode_Assgn2.zip*".
We may automate some part of Assignment grading, and if your files do not match the above formats, they may not be graded. The mode of submission will be intimated to you at least 2 days prior to the submission deadline.

Deadline:
The deadline for submitting the assignment is **Sunday, Sep 25, 2016, 11:59 PM**.

Demo:
You may be called in to give a demo of the code that you wrote. Hence, it is very important for you to understand every line of code you submit, even if, you take code snippets from online tutorials. At the time of demo, you may be asked to explain at random, any code fragment submitted by you. Also, the demo **MUST** be given on a **real Android device**, and **NOT** on a **simulator**.

Clarifications:
Any clarifications regarding the assignment can be sought by **posting on forum** on course website: http://cs455.cse.iitk.ac.in/ . Please note that all the clarification threads **MUST** be sent by **Thursday, Sep 22, 2016, 11:59 PM**. **No clarification queries**, via mail or in person, will be answered. Please do not repeat the threads on the forum with same doubts.

Plagiarism:
This is an individual assignment, and you are not supposed to collaborate with any one else. If we find any unusual similarities in codes of two or more individuals, the same will be reported as suspected act of plagiarism. If found guilty, you will face severe punishment for the same.