Laksha e-Commerce - Coding Challenge Level 0

Here is a quick warm up session before you enter the next level:

1. Visit the following link and take a 20 questions test:  
   <http://www.indiabix.com/online-test/java-programming-test/random>
2. You have 30 minutes to complete the test
3. After you have submitted the test, copy paste the entire result web page screenshot (not the HTML) in Word file and email it your manager

**Rules**

1. You are not allowed to take help from online tutorials, search etc. Only open one tab for the above link and close all other tabs.
2. You are not allowed to discuss questions with colleagues.
3. If your result is lower than 50%, please do not attempt the next level.

Laksha e-Commerce - Coding Challenge Level 1

Welcome to the coding challenge. Here are your tasks for the day. Wish you good luck.

1. Create your free account on bitbucket.org
2. On Bitbucket, create a new open source project repository
3. Clone repository in your computer and create a new base Spring MVC project in it
4. Check-in base project to repository before start of coding
5. In your project, create a REST API that will do one of the following
   1. Return random stock price of a company whose stock exchange code is 4 characters long. The price should be in minimum 2 currencies - say USD and INR based on request parameter. In case no preference of currency in request, default currency should be USD
   2. Return random temperature of a city identified by a 3 letter City code - the temperature should be returned in either centigrade or fahrenheit depending upon request parameter. In case no preference of unit in request, default should be centigrade.
   3. Return random price of a brand new car in USD and INR such that car manufacturer could be one of [Fiat, Ford, Toyota] and model could be one of [Punto,Linea], [Ecosport,Figo] and [Etios,Fortuner,Altis] respective to the brand options. Car manufacturer and its model will be part of the request.
6. In same project, using MVC pattern on Spring Framework, design a web flow to demonstrate
   1. How to take inputs from user in browser with validation
   2. Prepare a web service request
   3. Consume the web service you created above
   4. Display the data back to the user in browser
   5. Handle exceptions during the process
7. Once tested in your local machine, commit the code into the repository
8. Email link of your repository to your manager along with your name and employee ID

**Rules**

1. You may not take Internet’s help during development process
2. You may not take your colleague’s help during the process
3. You have to complete the project on your own
4. We will discuss your code and development strategy during evaluation process

Laksha e-Commerce - Coding Challenge Level 2

Welcome once again! Hope you have a working spring project by now and are ready to deep dive into next level :-)

1. In your spring based project, do one of the following:
   1. Ford company makes many cars. Each car has unique features but ultimately they are all cars. Using ‘Factory Pattern’ in JAVA, create a JAVA based Ford ‘car factory’ where ‘Car’ is an interface, ‘Ecosport’, ‘Figo’, ‘Endeavour’ and ‘Mondeo’ could be four implementations of the ‘Car’ interface which throw back their respective Model specific feature hashmap.
   2. Model the above business scenario in JAVA based ‘Facade Pattern’.
   3. Think of an alternative, yet, similar business situation and using either factory or facade pattern, design a JAVA class package.
2. Create a web service (REST or SOAP) that will take the name of the model as input and throws back model’s feature as response using JAVA package you created above.
3. Using MVC design pattern, create a web flow that takes input of Car model [‘Ecosport’, ‘Figo’, ‘Endeavour’, ‘Mondeo’ ] from user and returns features of the specified model using the web service you created above.
4. Once tested in your local machine, commit the code into the repository
5. Email link of your repository to your manager along with your name and employee ID

**Rules**

1. You may not take Internet’s help during development process
2. You may not take your colleague’s help during the process
3. You have to complete the project on your own
4. We will discuss your code and development strategy during evaluation process