

# **CSE 445 –HOMEWORK 3**

## **PHASE-IV**

### **TEAM MEMBERS:**

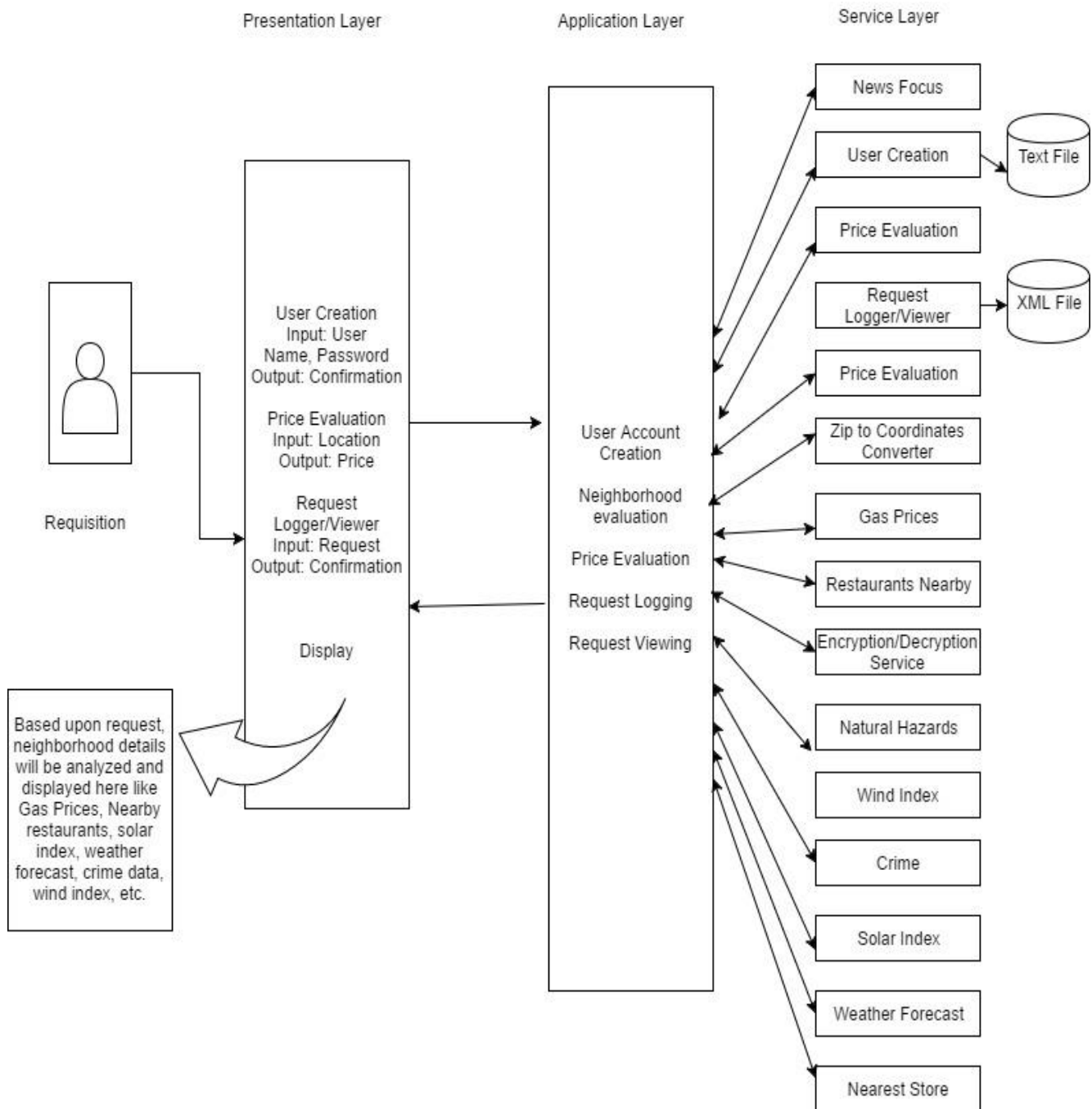
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|----|--------------|------------|
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| 3. | Abhishek Rao | 1210425135 |

## I. PROJECT SYNOPSIS:

In this assignment, we are targeting to build a “**Property Evaluation application**” which could help an user to find the best suited location by analyzing various factors like gas prices of certain location, Land price comparison, Weather trend, Natural Hazard index etc. Apart from assisting buyer, it allows property broker/owner to estimate the popularity of their property on sale by analyzing the requestor’s trend based on the requests logged by buyers for property visits. This will help property broker/owner analyze the statistics, so that they can offer their property best price to achieve good profit. Our Application flow will systematically guide a buyer to make a conscious decision for property he/she is going to buy. Please find below the classification based on workflow for our application:



## II. SYSTEM DESIGN DIAGRAM:



### III. SERVICE DIRECTORY:

This page is deployed at: <http://10.1.22.45:9004/index.html>

Group Name: DUNGEON MASTERS



REQUIRED



ELECTIVE

Provider Name	Service name, with input and output types	Try it link	Service Description	Resources needed to implement the service
Varun	<b>Crime Data Service</b> Input: ZipCode Output: Number of Crime Incidents	<a href="http://10.1.22.45:8098">http://10.1.22.45:8098</a>	This service returns certain crime data for a given location. The service can use data published by police crime reports and statistics.	Retrieved Information from : <a href="https://azure.geodataservice.net/">https://azure.geodataservice.net/</a>
Varun	<b>Wind Energy Service</b> Input: Latitude and Longitude	<a href="http://10.1.22.45:8098">http://10.1.22.45:8098</a>	This service returns the annual average wind index of a given position (latitude, longitude).	Retrieved Information from <a href="https://eosweb.larc.nasa.gov/cgi-bin/sse/global.cgi">https://eosweb.larc.nasa.gov/cgi-bin/sse/global.cgi</a>
Abhishek	<b>Weather Forecast Service</b> Input: Zipcode Output: Forecast data	<a href="http://10.1.22.45:9003">http://10.1.22.45:9003</a>	This service returns the 7 day Weather Forecast data at the particular location	Retrieved Information from <a href="https://www.apixu.com/">https://www.apixu.com/</a>
Abhishek	<b>Solar Energy Service</b> Input : Latitude and Longitude Output: Number	<a href="http://10.1.22.45:9003">http://10.1.22.45:9003</a>	This service returns the annual average sunshine index of a given position (latitude, longitude).	Retrieved Information from <a href="https://eosweb.larc.nasa.gov/cgi-bin/sse/global.cgi">https://eosweb.larc.nasa.gov/cgi-bin/sse/global.cgi</a>
Dhruv	<b>NewsFocus Service</b> Input : Topic name Output: List of news articles about the specified topic	<a href="http://10.1.22.45:8094">http://10.1.22.45:8094</a>	This service returns the list of news articles about the specified topic	Retrieved Information from <a href="https://news.google.com/news">https://news.google.com/news</a>
Dhruv	<b>Nearest store service</b> Input : Zipcode and Store name Output : Store Address	<a href="http://10.1.22.45:8094">http://10.1.22.45:8094</a>	This service returns the address of the specified store nearest to the given Zipcode.	Retrieved Information from <a href="https://api.yelp.com/">https://api.yelp.com/</a>
Abhishek	<b>Zipcode to Latitude &amp; Longitude Converter service</b> Input: Zipcode Output : Latitude and Longitude	<a href="http://10.1.22.45:8004">http://10.1.22.45:8004</a>	This service converts the specified Zipcode to Latitude and Longitude values.	Use Zipcode Api service to get the Latitude and Longitude values : <a href="https://www.zipcodeapi.com/">https://www.zipcodeapi.com/</a>
Abhishek	<b>Latitude &amp; Longitude to Zipcode Converter service</b> Input: Zipcode Output : Latitude and Longitude	<a href="http://10.1.22.45:8005">http://10.1.22.45:8005</a>	This service converts the specified Latitude and Longitude to corresponding Zipcode	Use geonames Api to get the Latitude and Longitude values <a href="http://www.geonames.org/">http://www.geonames.org/</a>

Abhishek	<b>User ID generation Service</b> Input: Full Name, Email address Output: Generated UserId	<a href="http://10.1.22.45:8017">http://10.1.22.45:8017</a>	This service generates UserId using Fullname and email address as an input parameters.	Use Random library class and local component to implement the service.
Abhishek	<b>User Account Creation service (Difficult)</b> (i) Creation of Account : Input: UserName, Email address, Password, Security Question and Answer Output: Generated UserId (ii) Forgot UserId : Input : Full Name, Email address Output : UserId API Used: Used Id Creation and Encryption/Decryption API	<a href="http://10.1.22.45:8021">http://10.1.22.45:8021</a>	This service is used to maintain all User accounts in a Data set. The service returns a generated userID for any particular user. The User can also request for his User ID if in case he forgots it with the help of Full name and Email address.	Use library class and local component to implement the service and store the requests in an Xml document Also, used API's like : > getUserId API > Encryption/Decryption API
Varun	<b>Request Logger Service: (Difficult)</b> (i) Logs the Property check Request ( Requestor) Input : Name (First/Last), Email ID, Zip Code, Property Name, Request Message Output : Request Id (Generated) (ii) Logs the Property check Request: (Agent) Input: Request Id Output : User Id, Login Date, Zip Code, Property Name, Request Message API Used: Used Id Creation and Encryption/Decryption API	<a href="http://10.1.22.45:8019">http://10.1.22.45:8019</a>	This service accepts requests from End User (Prospect customers) about specific property. Logs such request along with their unique identity details ( API for User Id creation). This service store details in persistent database (XML) post performing encryption. While fetching details, Service provide decrypted data	Use library class and local component to implement the service to store the requests in an Xml/Text document. Also, used API's like : > getUserId API > Encryption/Decryption API
Varun	<b>UV Index Service</b> Input: Latitude , Longitude Output: Number( UV Index for the Location)	<a href="http://10.1.22.45:9000">http://10.1.22.45:9000</a>	This service accepts Latitude and Longitude and returns UV Index for that location	Use library class and local component to implement the service. Also used following API : <a href="http://api.openweathermap.org/v3/uvi/">http://api.openweathermap.org/v3/uvi/</a>
Varun	<b>Encryption/Decryption service:</b> Input: String Output: String	<a href="http://10.1.22.45:8015">http://10.1.22.45:8015</a>	This service is used for Cipher encryption and decryption of the user account created.	Use library class and local component to implement the service.

Varun	<b>Natural Hazards Service</b> Input : Latitude and Longitude Output: Number	<a href="http://10.1.22.45:8098">http://10.1.22.45:8098</a>	This service outputs a number reflecting the natural hazards at the particular location.	Retrieved Information from <a href="https://earthquake.usgs.gov/">https://earthquake.usgs.gov/</a>
Dhruv	<b>Gas Prices Service</b> Input: Location Address Output: Estimated Gas price around the area.	<a href="http://10.1.22.45:8009">http://10.1.22.45:8009</a>	This service is used to retrieve the gas price for the particular location.	Use mygasfeed.com API to retrieve the gas prices around the location : <a href="http://devapi.mygasfeed.com/stations">http://devapi.mygasfeed.com/stations</a>
Dhruv	<b>Distance to Property Service</b> Input: Origin ZipCode , Destination ZipCode Output: Distance (in Kms)	<a href="http://10.1.22.45:8011">http://10.1.22.45:8011</a>	This service takes input as two Zip Codes and returns the distance between them	Retrieved Information from <a href="https://api.yelp.com/">https://api.yelp.com/</a>
Dhruv	<b>Pollution Index Service</b> Input: City Name Output: Number ( Pollution Index)	<a href="http://10.1.22.45:8007">http://10.1.22.45:8007</a>	This service takes input City Name and returns the Pollution Index of that City	Retrieved Information from <a href="https://api.yelp.com/">https://api.yelp.com/</a>
Dhruv	<b>Nearby Service (Difficult)</b> Input: Latitude, Longitude Output: List of services available nearby.	<a href="http://10.1.22.45:8013">http://10.1.22.45:8013</a>	This Service returns the list of services nearby the location specified.	Use Google maps API to retrieve the information : <a href="https://developers.google.com/maps/">https://developers.google.com/maps/</a>