**UTILITY SERVICE (FIND PRIME FACTORS OF GIVEN NUMBER)**

**Problem Statement:**

Build a rest api which take input as number and the response is the prime factors of the given number.

**GitHub Repository URL:**  
<https://github.com/pmv103/PrimeFactor.git>

**Solution:**

It is a rest based application build to find the prime factors of given number. To run this application we need tomcat server version 8 or greater.

**Tools used:**

Java : JDK 1.8

Jars : jaxrs-ri-2.26

Server : Apache tomcat 9.0.2

IDE : Eclipse

**Java source code:**

Below two java files are required to implement the above service

1. UtilityServiceResource.java

It is service resource file which takes the request

1. PrimeFactor.java

It is java file contains actual prime factor calculation logic.

**Procedure:**

To run the application we need to deploy the UtilityService.war file on tomcat server with the help of tomcat manager. For testing the application we need to hit the below URL on RESTED or POSTMAN (chrome extension) application.

**URL:**

http://<ip>:<port>/UtilityService/rs/utilityservice/primefactors/{numString}

**Description:**

|  |  |
| --- | --- |
| **Parameter** | **Description** |
| ip | IP address of server where rest application is running |
| port | Tomcat server port i.e 8080 |
| {numString} | Specifies the input value for which prime factors have to be determined  **Valid Input range is:** 2 to 9,223,372,036,854,775,807 |

**For Example:**

http://127.0.0.1:8080/UtilityService/rs/utilityservice/primefactors/8

**Result:**

Prime factor(s) are: 2 2 2