

1101 Assessment - 10

Duration: 2 hours

Problem statement:

Develop, test and deploy a micro service to show the output of a city's next 3 days high and low temperatures. If rain is predicted in next 3 days or temperature goes above 40 degree celsius then mention 'Carry umbrella' or 'Use sunscreen lotion' respectively, in the output, for that day. The service should be accessible via web browser on internet and end user should be able to view results by changing city. The output should be presented in web browser using any one of Javascript framework, HTML, JSON or plain text. And the service should be ready (in Git repository) to be released to production or live environment.

Use following for completion:

1. On your machine:
 - a. Eclipse IDE
 - b. Java 1.8
 - c. Maven
 - d. Putty
 - e. WinSCP client for file transfer
 - f. ZA Proxy
 - g. Selenium
 - h. JMeter
 - i. Internet access for search and research. In case you don't want to use any of the above listed tool, you can download any relevant tool or utility to complete the assessment.

API to fetch weather forecast data:

<https://samples.openweathermap.org/data/2.5/forecast?q=London,us&appid=d2929e9483efc82c82c32ee7e02d563e>

2. Refer @ [here](#) for the details about this API.

If any other weather API is preferred that can also be used instead of this.

3. Github repository
 - a. Setup a local Git repo. for your project(s)
 - b. Check-in the code to complete the assessment
 - c. After completion of the exercise, **bundle** the Git repo. and mail it to haneet.singh@publicissapient.com & nidhi.singh@publicissapient.com
4. Jenkins is available to build and release the service at:
 - a. *Download & Install Jenkins locally*
 - b. *Build jobs and pipeline for your project(s), using the local git*
 - c. *Pipeline scripts need to be part of the codebase;*
 - d. *Export the Jenkins job config., scripts as part of the project sources*
5. VM to host the service is available at:
 - c. *Create a docker image and publish service locally*
 - d. *Share the docker image files as part of the code*
 - e. *Docker files (sources) need to be part of the codebase*
 - f. **If you are not able to use Docker locally, you may publish the service to AWS**
 - VM to host the service is available at: URL: <http://ec2-18-217-63-227.useast2.compute.amazonaws.com/>
 - Public IP: 18.217.63.227
 - *SSH/SCP username: Ubuntu
 - Keyfile (for SSH/SCP access): "jenkins.pem" on your machine
 - OS: Ubuntu Linux
 - Port: 8080 (only this port is open to access the service over internet)

- *Worst case, mail the executable uber jar with all dependencies to haneet.singh@publicissapient.com & nidhi.singh@publicissapient.com*