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| **Online Beverage Order Request** | | | |
| **Problem Statement**:  Currently outlets will inform its distributors to get the requested stock for sale. Our system will enable them to directly place orders so that distributors will send the required stock to outlets.  An efficient web application is needed to place orders for Beverage booking. | | | |
| **Requirement Specifications**:   * The system will allow user to login. * The system will notify for invalid user or password. * The system will allow new users to register. * The system will allow new users to update the password if forgot. * The customer should be able to select one of the item for which the orders can be placed. * Order confirm page. * Logout page(Redirected to Main page). | | | |
| **Assumptions** (if any):   * Source code to be developed. * Compatible tools and operating environment (Tomcat, Eclipse, JDK, Maven etc.) needed is already setup. * Users are existing customers which have specific outlet numbers. | | | |
| Deliverables: (Version Controlled in Source Code Repository). Build Automation   * Project Structure with source      * Snapshots:   + Gitlab History      * + Jenkins Project Configuration (Auto build trigger)      * + Jenkins Build History     Deployment Automation (After Build Automation)   * Snapshots:   + Jenkins Configuration – Artifactory, SonarQube and WebServer   SonarQube:    Artifactory:    WebServer:     * + Jenkins Project Configuration      * 1. Jenkins Build History     Release Automation (Build + Deployment Automation)   * Configuration Scripts:   “**pipeline.txt**” File– Provided in the GITLAB URL.   * Snapshots:   + Gitlab History      * + jenkins Configuration – Ansible and Docker     Docker: Ansible triggers Docker internally and runs a container where the application is deployed with exposed port 1100.   * + Jenkins Project Configuration   It is Jenkins Pipeline project.     * 1. Jenkins Build History      * 1. Docker showing BeverageStore, cadvisor containers running at ports 1100 and 2200 respectively. Also it shows 5 replica services of BeverageStore\_web.     Docker showing stack services and network of BeverageStore App.     * 1. Continuous Monitoring using cAdvisor tool.   Below is the web page at port 2200 showing the cadvisor and the dockers it contains.    Screen showing docker containers running    Screen showing the Driver status    **Continuous Monitoring Tool showing the CPU Usage statistics of containers** | | | |
| Purpose | Description | Tool Used | Remark |
| SCM | Project Management:  Complete Project Folder structure with Source and Read Me document giving brief description for repository. | GIT | * https://topgear-training-gitlab.wipro.com/ARCAXX/DevOpsProfessional-B13-Capstone-OnlineBeverageStore.git |
| DevOps Pipeline | Give brief description about how following DevOps Principles are considered in the project at each stage:  Continuous Development  Continuous Build  Continuous Integration  Continuous test  Continuous release  Continuous  Deployment  Continuous monitoring | Jenkins,  Maven,  Junit,  Selenium,  Jfrog,  Sonarqube | Online Beverage Store is developed using Maven, Java and JSP.  There are Junit as well as Integration testing done for this app using Juint and Selenium tools which is verified during build creation.  We have used SonarQube for Code quality check and Jfrog Artifactory for storing artifacts.  Jenkins is used to build and automate the build and deploy using all the tools mentioned in Tools used section. |
| Environment/ Configuration Automation | * Whether application is deployed on server or on container environment. * Environment may involve multiple binaries, libraries, app/web/database servers. * List the packages to be installed. * List of configuration files to be modified * List the services & any other relevant info. | Ansible,  Docker,  Docker Swarm,  Jacoco,  Cadvisor(Monitoring Tool) | Ansible is used to orchestrate the server configuration as well as run various play book to import Docker images and create containers to run our web application.  Jacoco is integrated with SOnarQube for additional feature for code coverage.    Cadvisor is the monitoring tool which monitors containers created in Docker and also the System(VDI server). |