Module : 06

Jenkins Exercise

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Exercise 3: Freestyle Job - Flask Application Deployment

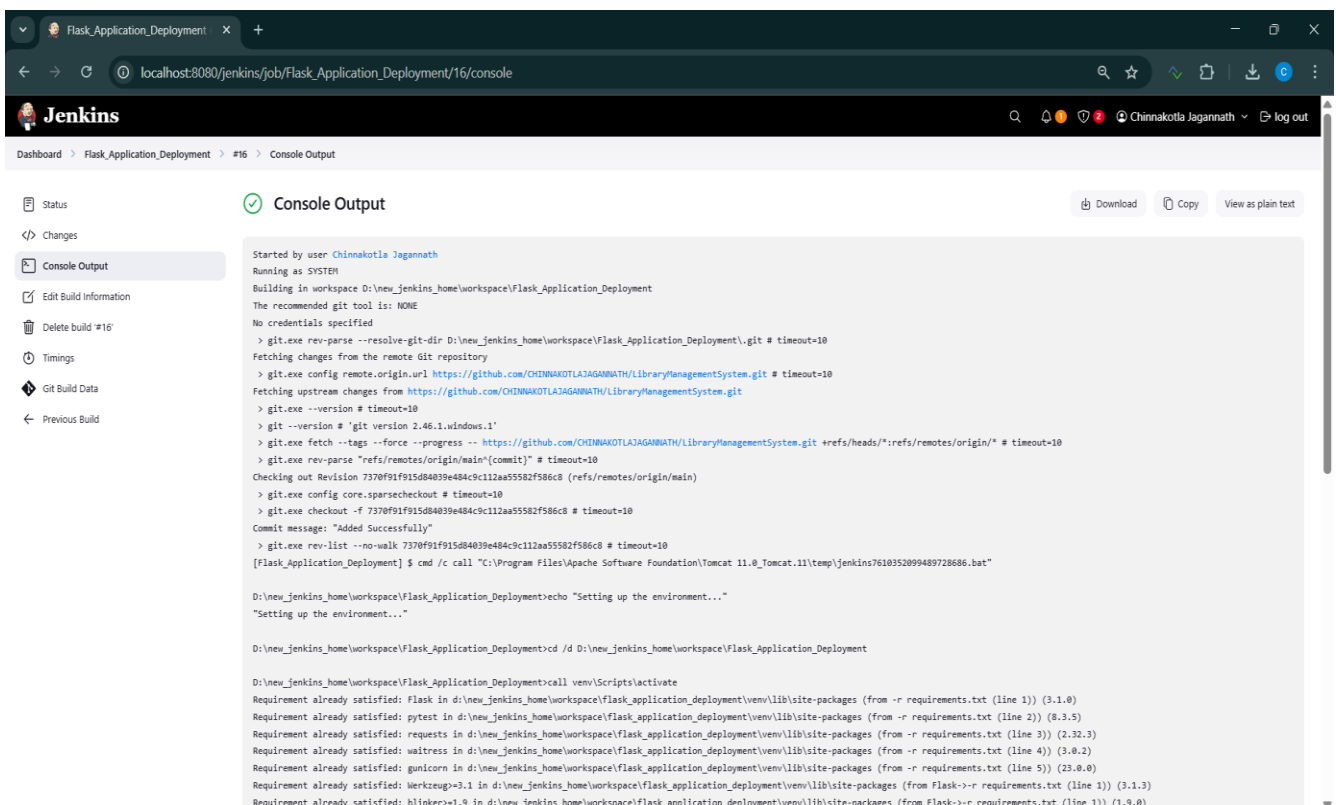**1. Objective:** Automate the deployment of a Flask application.

2. Steps:

- Create a Freestyle Job.

- Configure the job to:

  ▪ Pull the Flask application repository from GitHub.

  ▪ Set up a virtual environment using Python:

  python -m venv venv .\venv\Scripts\activate pip install -r requirements.txt

  ▪ Start the Flask development server.

- Add a post-build action to verify the server is running (e.g., using curl or a similar tool to hit a test endpoint).

3. Task: Test the application deployment by accessing it via localhost.

Flask Project GitHub Repo Link:

https://github.com/CHINNAKOTLAJAGANNATH/LibraryManagementSystem

```
Requirement already satisfied: Werkzeug>=3.1 in d:\new_jenkins_home\workspace\flask_application_deployment\venv\lib\site-packages (from Flask->-r requirements.txt (line 1)) (3.1.3)
Requirement already satisfied: blinker>=1.9 in d:\new_jenkins_home\workspace\flask_application_deployment\venv\lib\site-packages (from Flask->-r requirements.txt (line 1)) (1.9.0)
Requirement already satisfied: click>=8.1.3 in d:\new_jenkins_home\workspace\flask_application_deployment\venv\lib\site-packages (from Flask->-r requirements.txt (line 1)) (8.1.8)
Requirement already satisfied: Jinja2>=3.1.2 in d:\new_jenkins_home\workspace\flask_application_deployment\venv\lib\site-packages (from Flask->-r requirements.txt (line 1)) (3.1.6)
Requirement already satisfied: itsdangerous>=2.2 in d:\new_jenkins_home\workspace\flask_application_deployment\venv\lib\site-packages (from Flask->-r requirements.txt (line 1)) (2.2.0)
Requirement already satisfied: tomli>=1 in d:\new_jenkins_home\workspace\flask_application_deployment\venv\lib\site-packages (from pytest->-r requirements.txt (line 2)) (2.2.1)
Requirement already satisfied: iniconfig in d:\new_jenkins_home\workspace\flask_application_deployment\venv\lib\site-packages (from pytest->-r requirements.txt (line 2)) (2.0.0)
Requirement already satisfied: exceptiongroup>=1.0.0rc8 in d:\new_jenkins_home\workspace\flask_application_deployment\venv\lib\site-packages (from pytest->-r requirements.txt (line 2)) (1.2.2)
Requirement already satisfied: pluggy<2,>=1.5 in d:\new_jenkins_home\workspace\flask_application_deployment\venv\lib\site-packages (from pytest->-r requirements.txt (line 2)) (1.5.0)
Requirement already satisfied: packaging in d:\new_jenkins_home\workspace\flask_application_deployment\venv\lib\site-packages (from pytest->-r requirements.txt (line 2)) (24.2)
Requirement already satisfied: colorama in d:\new_jenkins_home\workspace\flask_application_deployment\venv\lib\site-packages (from pytest->-r requirements.txt (line 2)) (0.4.6)
Requirement already satisfied: urllib3<3,>=1.21.1 in d:\new_jenkins_home\workspace\flask_application_deployment\venv\lib\site-packages (from requests->-r requirements.txt (line 3)) (2.3.0)
Requirement already satisfied: idna<4,>=2.5 in d:\new_jenkins_home\workspace\flask_application_deployment\venv\lib\site-packages (from requests->-r requirements.txt (line 3)) (3.10)
Requirement already satisfied: charset-normalizer<4,>=2 in d:\new_jenkins_home\workspace\flask_application_deployment\venv\lib\site-packages (from requests->-r requirements.txt (line 3)) (3.4.1)
Requirement already satisfied: certifi>=2017.4.17 in d:\new_jenkins_home\workspace\flask_application_deployment\venv\lib\site-packages (from requests->-r requirements.txt (line 3)) (2025.1.31)
Requirement already satisfied: MarkupSafe>=2.0 in d:\new_jenkins_home\workspace\flask_application_deployment\venv\lib\site-packages (from Jinja2>=3.1.2->Flask->-r requirements.txt (line 1)) (3.0.2)


[notice] A new release of pip available: 22.3.1 -> 25.0.1
[notice] To update, run: python.exe -m pip install --upgrade pip
ERROR: Input redirection is not supported, exiting the process immediately.
"Verifying Flask App Routes..."
 * Serving Flask app 'app'
 * Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
 * Running on http://127.0.0.1:5000
Press CTRL+C to quit
 * Restarting with stat
 * Debugger is active!
 * Debugger PIN: 532-077-364
127.0.0.1 - - [10/Mar/2025 23:18:33] "GET / HTTP/1.1" 200 -
Retrieved HTTP Code: 200
"Flask application is running successfully!"
Process leaked file descriptors. See https://www.jenkins.io/redirect/troubleshooting/process-leaked-file-descriptors for more information
Finished: SUCCESS
```

REST API   Jenkins 2.492.1