

CI/CD Deployment Pipeline Documentation (OxyPC)

1. Overview

This document describes the CI/CD setup for deploying the OxyPC application using Jenkins.

2. Architecture

- Source Code: GitHub
- CI/CD Tool: Jenkins
- Framework: Yii
- Deployment Path: /var/www/html/oxypc
- Backup Path: /opt/Oxypc_pipeline_code_backup

3. Workflow

Developer pushes code → GitHub → Webhook → Jenkins → Deployment

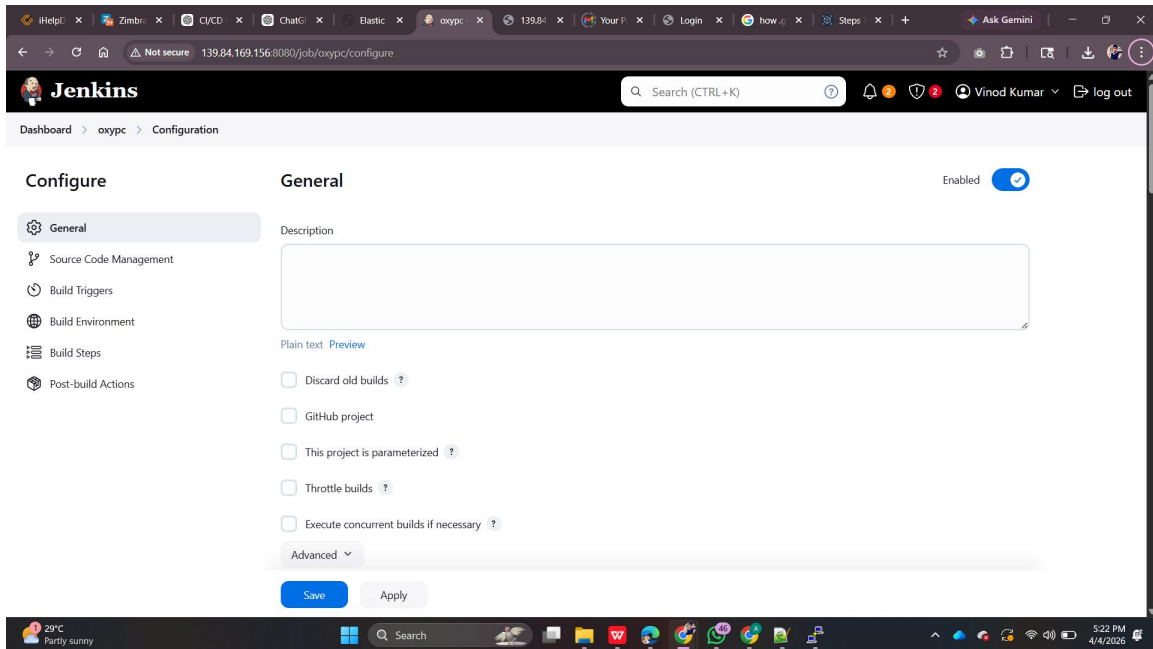
4. Jenkins Job Configuration

- Job Type: Freestyle
- Source: GitHub repository
- Credentials: GitHub token
- Trigger: GitHub webhook
- Build Step: Execute shell script

4. Deployment Script

Script present in Jenkins Web UI

Dashboard>oxypc>Configuration inside build steps



```
TARGET_DIR="/var/www/html/oxypc"  
WORKSPACE_DIR="/var/lib/jenkins/workspace/oxypc"
```

```
mkdir -p $TARGET_DIR  
# Ensure permissions before deployment  
sudo chown -R jenkins:www-data $TARGET_DIR  
sudo chmod -R 775 $TARGET_DIR
```

```
# Deploy code  
cp -r $WORKSPACE_DIR/ $TARGET_DIR/
```

```
# Fix permissions after deployment  
sudo chown -R jenkins:www-data $TARGET_DIR  
sudo chmod -R 775 $TARGET_DIR
```

5. Backup Script

Script present in /opt/Oxypc_pipeline_code_backup.sh

```
#!/bin/bash  
  
TARGET_DIR="/var/www/html/oxypc"  
BACKUP_DIR="/opt/Oxypc_pipeline_code_backup"  
  
TIMESTAMP=$(date +%Y-%m-%d_%H-%M-%S)  
  
sudo mkdir -p $BACKUP_DIR  
  
if [ -d "$TARGET_DIR" ]; then  
    sudo cp -r $TARGET_DIR $BACKUP_DIR/oxypc_backup_$TIMESTAMP  
fi
```

6. Retention Policy

Only last **5 backups** are retained.

Retention Script

```
KEEP=5

cd /opt/Oxypc_pipeline_code_backup

ls -ldt oxypc_backup_* | tail -n +$((KEEP+1)) | while read backup
do
    sudo rm -rf "$backup"
done
```

Sudo Configuration

To allow Jenkins to execute privileged commands:

```
sudo visudo
```

Add:

```
jenkins ALL=(ALL) NOPASSWD: ALL
```