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## Experiment 5: CI/CD Declarative Pipeline using Jenkins & XAMPP

 Auto-deploy HTML files to XAMPP using a declarative pipeline

### What's Different from Experiment 4?

- We still:
  - Clone HTML files from GitHub
  - Deploy them to `C:\xampp\htdocs\`
-  But this time: we use a declarative pipeline (easier to maintain, modern syntax)

 Prerequisites (already covered 

Requirement	Description
XAMPP running	Check <code>http://localhost/</code>
Repo with HTML files	<a href="https://github.com/TUMTUM-om/DEVOPS">https://github.com/TUMTUM-om/DEVOPS</a>
Jenkins installed	<input checked="" type="checkbox"/>
Git & Jenkins Git plugin	<input checked="" type="checkbox"/>

## Step-by-Step Setup

### Step 1: Create Pipeline Job

1. Open Jenkins
2. Click New Item
3. Name it: `DeployHTML_Declarative`
4. Choose Pipeline
5. Click OK

### Step 2: Paste Declarative Pipeline Script

Scroll to Pipeline → Definition: Pipeline script  
Paste this:

```
groovy

pipeline {
  agent any

  stages {
    stage('Clone from GitHub') {
      steps {
        git 'https://github.com/TUMTUM-om/DEVOPS.git'
      }
    }

    stage('Deploy to XAMPP') {
      steps {
        bat 'xcopy /Y *.html C:\\xampp\\htdocs\\'
      }
    }
  }
}
```

✔ Click Save

### ▶ Step 3: Build and Deploy

1. Click Build Now
2. View Console Output
  - You should see:

```
nginx
xcopy /Y *.html C:\xampp\htdocs\
```

3. Visit in browser:

```
arduino
http://localhost/file1.html
```

✔ It worked — your HTML was deployed using a clean, declarative Jenkins pipeline.

### 🔄 Optional: Add Auto-Trigger Every 2 Minutes

To make Jenkins check for GitHub updates every 2 minutes, update your script like this:

```
groovy

pipeline {
  agent any

  triggers {
    pollSCM('*/* * * * *')
  }

  stages {
    stage('Clone from GitHub') {
      steps {
        git 'https://github.com/TUMTUM-om/DEVOPS.git'
      }
    }

    stage('Deploy to XAMPP') {
      steps {
        bat 'xcopy /Y *.html C:\\xampp\\htdocs\\'
      }
    }
  }
}
```

✔ Now Jenkins checks GitHub every 2 minutes — if any file changes, it redeploys!

