Creating Each Part of the Workflow

1. Workflow Name

```
name: tutorial_pipeline
```

- Sets the name shown in GitHub Actions.

---

2. Trigger: Manual Start

```
on:
  workflow_dispatch:
```

- Enables manual triggering from the GitHub UI.

---

3. Jobs

```
jobs:
  build_test:
```

- Defines a single job named `build_test`.

---

4. Runner

```
runs-on: ubuntu-latest
```

- Uses an Ubuntu virtual machine to run the job.

---

5. Steps

a) Checkout Code

```
- name: Checkout code
  uses: actions/checkout@v4
```

- Pulls the repository code into the runner.

b) Install Java 11

```yaml
- name: Install Java 11
  uses: actions/setup-java@v3
  with:
    java-version: '11'
    distribution: 'temurin'
```

- Installs Java 11 from Temurin.

c) Build and Test

```yaml
- name: Build and Test
  run: mvn -B verify || true
```

- Runs Maven's `verify` lifecycle to build and test.
- `|| true` ensures the workflow doesn't fail even if the build/test fails.

📄 Full Pipeline YAML

Here's the **full complete pipeline** you would put in `.github/workflows/tutorial_pipeline.yml`:

```yaml
name: tutorial_pipeline

on:
  workflow_dispatch:

jobs:
  build_test:
    runs-on: ubuntu-latest
    steps:
      - name: Checkout code
        uses: actions/checkout@v4

      - name: Install Java 11
        uses: actions/setup-java@v3
        with:
          java-version: '11'
          distribution: 'temurin'

      - name: Build and Test
        run: mvn -B verify || true
```