# 🧪 Creating a Test Plan in JMeter

A **Test Plan** in JMeter is like your **blueprint for a performance test**. It defines:

* What to test
* How many users to simulate
* How long the test should run
* What to measure

Let’s walk through how to build one from scratch.

**🛠 Step 1: Launch JMeter GUI**

**✅ Example (Windows):**

* Navigate to: C:\apache-jmeter-5.X.X\bin
* Double-click: jmeter.bat

**✅ Example (macOS/Linux):**

bash

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cd /path/to/apache-jmeter/bin

sh jmeter.sh

You’ll see a blank workspace with a **Test Plan** node already present.

**➕ Step 2: Add a Thread Group**

1. **Right-click** on **Test Plan** node in the left panel
2. Navigate to:  
   Add → Threads (Users) → Thread Group

✅ This **Thread Group** simulates your virtual users.

**⚙️ Step 3: Configure the Thread Group**

Click on the **Thread Group** node you just added. You’ll see options like:

| **Setting** | **What It Means** | **Example** |
| --- | --- | --- |
| **Name** | Descriptive name for the group | Login Test Users |
| **Action on Sampler Error** | What to do if a request fails | Continue, Stop Thread, Stop Test Now |
| **Number of Threads (users)** | Virtual users to simulate | 50 = simulate 50 users |
| **Ramp-Up Period (seconds)** | Time to spread out the user start | 10 = 5 users start per second (50/10) |
| **Loop Count** | How many times each user runs through test | 5 = Each user repeats the flow 5 times |
| **Delay Threads Creation** | Start users only when needed | Useful in scheduling |
| **Scheduler** | Run test between a start and end time | Start: 10:00:00, End: 10:05:00 |

**🧠 Example Configuration for a Small Load Test**

| **Setting** | **Value** |
| --- | --- |
| Number of Threads (users) | 10 |
| Ramp-Up Period (seconds) | 20 |
| Loop Count | 2 |

💡 Meaning:  
JMeter will launch 10 users **over 20 seconds** (i.e., 1 user every 2 seconds), and **each user will repeat the scenario 2 times**.

**✅ Pro Tip: Descriptive Naming**

* Instead of generic names like “Thread Group 1,” use:
  + Search Users - Light Load
  + Checkout Users - Peak Load

**🧪 What’s Next After Thread Group?**

Once the Thread Group is configured, you’ll usually:

1. Add **Samplers** (e.g., HTTP Requests)
2. Add **Assertions** (e.g., check response code or time)
3. Add **Listeners** (to see test results)
4. (Optionally) Use **Timers**, **Pre/Post Processors**, and **Config Elements**