**Julio Pochet – Module 8.1 Discussion: Load, Stress, and Performance Testing**

When we think about pre-release testing, it's not just about making sure the app works, it’s also about making sure it doesn’t break under pressure. That’s where **load testing**, **stress testing**, and **performance testing** come in. These three are closely related but serve different purposes, and understanding the differences really helps when you're preparing software for real users.

**⚙️ Load Testing**

Load testing checks how the system performs under expected conditions—like normal traffic. Let’s say that your app is built to support 1,000 users at once; load testing simulates that to make sure the app stays responsive and stable. It’s often done near the end of development, and tools like **LoadNinja** or **JMeter** are commonly used.  
📘 <https://loadninja.com/load-testing/>

**💥 Stress Testing**

Stress testing is more intense since it throws way more traffic or pressure at the system than it's supposed to handle. The goal is to find the **breaking point** and see what happens when things go wrong. Does it crash? Slow down? Recover well? This is important for apps that need to stay reliable during traffic spikes.  
📘 <https://www.investopedia.com/terms/s/stresstesting.asp>

**🚀 Performance Testing**

Performance testing is the big-picture category that includes both load and stress testing. It focuses on things like **speed**, **responsiveness**, and **stability** in different conditions. It’s done throughout development to catch slowdowns or resource issues before they affect users.  
📘 <https://www.techtarget.com/searchsoftwarequality/definition/performance-testing>

**🧠 Final Thoughts**

* Load testing = How it handles expected traffic
* Stress testing = What happens when it’s overwhelmed
* Performance testing = How fast and stable it is overall

Using all three gives you a better idea of how your app will behave in the real world, and not just on paper.