User Acceptance Testing (UAT) Template

Date	10-4-2025
Team ID	SWTID1743605259
Project Name	ShopEZ
Maximum Marks	

PERFOMANCE MONITORING:

Performance monitoring is essential for ensuring the ongoing health and efficiency of the ShopEZ Website after deployment. By continuously tracking system metrics such as server CPU usage, memory consumption, database performance, API response times, and error rates, we can identify potential issues like slow page loads or transaction failures before they impact users. Using tools like Postman, Chrome DevTools, and MongoDB Atlas Profiler, we can monitor the system in real-time, allowing for quick resolution of problems and proactive optimization. This helps maintain a high-performing, reliable user experience, especially during periods of high traffic or resource strain.

Metric	**Description**	**Tools Used**
Response Time	Time taken for APIs and pages to load	Postman, Chrome DevTools
Throughput	Number of requests handled per second	Apache JMeter
Error Rate	Percentage of failed transactions	JMeter, Browser Logs
Server Load	CPU and memory usage of the server	Node.js Monitoring Tools
Database Performance	Query execution time, read/write speeds	MongoDB Atlas Profiler

Optimization Plan

Area	Issue	Strategy
Login API	Latency under load	Implement load balancer to distribute requests
Checkout DB Operations	Query slowdowns	Use indexing and limit nested population queries for faster response

Static Assets	Slow initial load	Enable lazy loading, minify JS/CSS files to improve load time
Search Function	UI delay during search input	Implement debounce input, preload search results for smoother experience
Server Memory	Resource spikes	Use pm2 clustering and autoscaling to optimize resource usage