🚀 Credit Gyems Academy - Test Commands Quick Reference

🎯 Most Common Commands

```powershell
# Quick validation (5-10 min)
.\scripts\TS_CGA_v1\Run-CompleteSuite.ps1 -TestMode Quick

# Run GUI tests only
.\scripts\TS_CGA_v1\Run-GUITests.ps1

# Run specific GUI test
npx playwright test navigation.spec.js --headed

# Update visual snapshots
.\scripts\TS_CGA_v1\Run-GUITests.ps1 -UpdateSnapshots
```

🖥️ GUI Testing

Basic Commands

```powershell
# All GUI tests (headless)
.\scripts\TS_CGA_v1\Run-GUITests.ps1 -Headless

# Specific browser
.\scripts\TS_CGA_v1\Run-GUITests.ps1 -Browser firefox

# With video recording
.\scripts\TS_CGA_v1\Run-GUITests.ps1 -RecordVideos

# Debug mode
$env:PWDEBUG=1; npx playwright test --headed
```

Playwright Direct Commands

bash

```bash
# Run all tests
npx playwright test

# Run specific test file
npx playwright test form-validation.spec.js

# Run tests in specific browser
npx playwright test --project=chromium

# Run with UI mode (interactive)
npx playwright test --ui

# Show last HTML report
npx playwright show-report

# Update snapshots
npx playwright test --update-snapshots

# Run component tests
npx playwright test -c playwright-ct.config.js
```

🔌 API Testing

powershell

```powershell
# Full API test suite
.\scripts\TS_CGA_v1\Run-CreditGyemsQA.ps1

# Skip server start (servers already running)
.\scripts\TS_CGA_v1\Run-CreditGyemsQA.ps1 -SkipServerStart

# With cleanup
.\scripts\TS_CGA_v1\Run-CreditGyemsQA.ps1 -CleanupAll

# Individual test suites
.\scripts\TS_CGA_v1\Test-AuthenticationFlow.ps1 -ProjectRoot "D:\credit-gyems-academy"
.\scripts\TS_CGA_v1\Test-EcommerceFlow.ps1 -ProjectRoot "D:\credit-gyems-academy"
.\scripts\TS_CGA_v1\Test-BookingFlow.ps1 -ProjectRoot "D:\credit-gyems-academy"
```

⚡ Edge Case Testing

powershell

```powershell
# Quick edge cases (payment + basic security)
.\scripts\TS_CGA_v1\Run-AllEdgeCaseTests.ps1 -QuickRun

# Standard edge cases
.\scripts\TS_CGA_v1\Run-AllEdgeCaseTests.ps1

# Full suite (includes destructive tests)
.\scripts\TS_CGA_v1\Run-AllEdgeCaseTests.ps1 -FullSuite

# Individual edge case tests
.\scripts\TS_CGA_v1\Test-PaymentEdgeCases.ps1
.\scripts\TS_CGA_v1\Test-ConcurrentUserBehavior.ps1
.\scripts\TS_CGA_v1\Test-SecurityEdgeCases.ps1
.\scripts\TS_CGA_v1\Test-DataIntegrityEdgeCases.ps1
```

📊 Stress Testing (K6)

bash

```bash
# Run default stress test
k6 run scripts/TS_CGA_v1/k6/stress-test.js

# Custom duration and users
k6 run --duration 10m --vus 50 scripts/TS_CGA_v1/k6/stress-test.js

# Output to cloud
k6 cloud scripts/TS_CGA_v1/k6/stress-test.js

# With environment variables
k6 run -e BASE_URL=https://staging.creditgyems369.com stress-test.js
```

🎯 Complete Test Suite

```powershell
# Standard run (recommended for PRs)
.\scripts\TS_CGA_v1\Run-CompleteSuite.ps1 -TestMode Standard

# Full suite (before releases)
.\scripts\TS_CGA_v1\Run-CompleteSuite.ps1 -TestMode Full

# Everything with all browsers (major releases)
.\scripts\TS_CGA_v1\Run-CompleteSuite.ps1 -TestMode All -Browser all

# CI mode (no interactive elements)
.\scripts\TS_CGA_v1\Run-CompleteSuite.ps1 -TestMode Standard -CIMode

# Skip certain test types
.\scripts\TS_CGA_v1\Run-CompleteSuite.ps1 -SkipGUI
.\scripts\TS_CGA_v1\Run-CompleteSuite.ps1 -SkipEdgeCases
.\scripts\TS_CGA_v1\Run-CompleteSuite.ps1 -SkipStress
```

🛠️ Utility Commands

Server Management

```powershell
# Start backend only
cd backend; npm run dev

# Start frontend only
cd frontend; npm run dev

# Check what's using ports
netstat -ano | findstr :3000
netstat -ano | findstr :5000

# Kill process by PID (Windows)
taskkill /PID <PID> /F

# Kill process by PID (Mac/Linux)
kill -9 <PID>
```

Test Data

powershell

```powershell
# Setup fresh test data
.\scripts\TS_CGA_v1\Setup-TestData.ps1 -ProjectRoot "D:\credit-gyems-academy"

# Cleanup test data
.\scripts\TS_CGA_v1\Cleanup-TestData.ps1 -ProjectRoot "D:\credit-gyems-academy" -CleanupAll
```

Reports

powershell

```powershell
# Open latest HTML report
Start-Process (Get-ChildItem test-reports\*.html | Sort-Object LastWriteTime -Descending | Sele

# Generate test report from existing results
.\scripts\TS_CGA_v1\Generate-TestReport.ps1 -TestResults $Global:TestResults -ProjectRoot "D:\c
```

🐛 Debug Tips

bash

```bash
# Playwright debug selector
npx playwright codegen localhost:3000

# Show browser dev tools
npx playwright test --debug

# Slow down tests (see what's happening)
npx playwright test --slow-mo=1000

# Take screenshot on each step
npx playwright test --screenshot=on

# Specific test with all debug features
$env:PWDEBUG=1
npx playwright test user-flows.spec.js --headed --slow-mo=1000 --screenshot=on
```

📋 Environment Variables

```powershell
# PowerShell
$env:BASE_URL = "http://localhost:5000"
$env:FRONTEND_URL = "http://localhost:3000"
$env:HEADLESS = "false"
$env:BROWSER = "chromium"

# Bash
export BASE_URL="http://localhost:5000"
export FRONTEND_URL="http://localhost:3000"
export HEADLESS="false"
export BROWSER="chromium"
```

⏱️ Typical Durations

Test Type	Quick	Standard	Full
API Tests	3 min	10 min	15 min
GUI Tests	5 min	15 min	30 min
Edge Cases	-	20 min	45 min
Stress Tests	-	-	30 min
Total	**8 min**	**45 min**	**2 hours**

🔥 Emergency Commands

```powershell
# Something's broken, run minimal tests
.\scripts\TS_CGA_v1\Test-Environment.ps1 -ProjectRoot "D:\credit-gyems-academy"

# Just check if login works
.\scripts\TS_CGA_v1\Test-AuthenticationFlow.ps1 -ProjectRoot "D:\credit-gyems-academy"

# Quick GUI smoke test
npx playwright test navigation.spec.js form-validation.spec.js --project=chromium

# Kill all node processes (Windows)
taskkill /F /IM node.exe

# Kill all node processes (Mac/Linux)
killall node
```

💡 **Pro Tip**: Add this file to your IDE's pinned tabs for quick access!