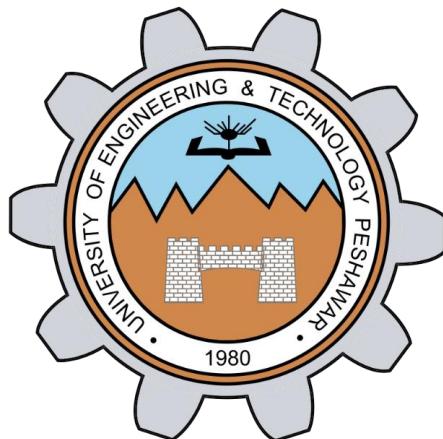


UNIVERSITY OF ENGINEERING AND TECHNOLOGY,  
PESHAWAR PAKISTAN

*Main Campus*



**Software Engineering**

**Lab Task 07**

**Submitted By**

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**DEPARTMENT OF COMPUTER SCIENCE & IT**

UNIVERSITY OF ENGINEERING AND TECHNOLOGY, PESHAWAR, PAKISTAN

# 1. Domain Model Table

1. User

Attributes	Operations
userId	login()
name	selectWebsite()
email	chooseImpairment()
role (developer/admin)	startSimulation()

2. SimulationManager

Attributes	Operations
simulationId	applyVisualImpairment()
selectedImpairment	applyMotorImpairment()
severityLevel	applyCognitiveImpairment()
status	stopSimulation()

3. ImpairmentProfile

Attributes	Operations
impairmentId	loadProfile()
impairmentType (visual/motor/cognitive)	adjustSeverity()
severityLevel	saveProfile()
filterSettings	resetProfile()

#### 4. WebsiteLoader

Attributes	Operations
targetURL	loadWebsite()
iframeId	refreshPage()
loadStatus	sanitizeURL()
sandboxMode	validateURL()

#### 5. WCAGAnalyzer

Attributes	Operations
ruleSet	runAnalysis()
issueList	detectContrastIssues()
complianceScore	detectAltTextIssues()
scanTimestamp	exportFindings()

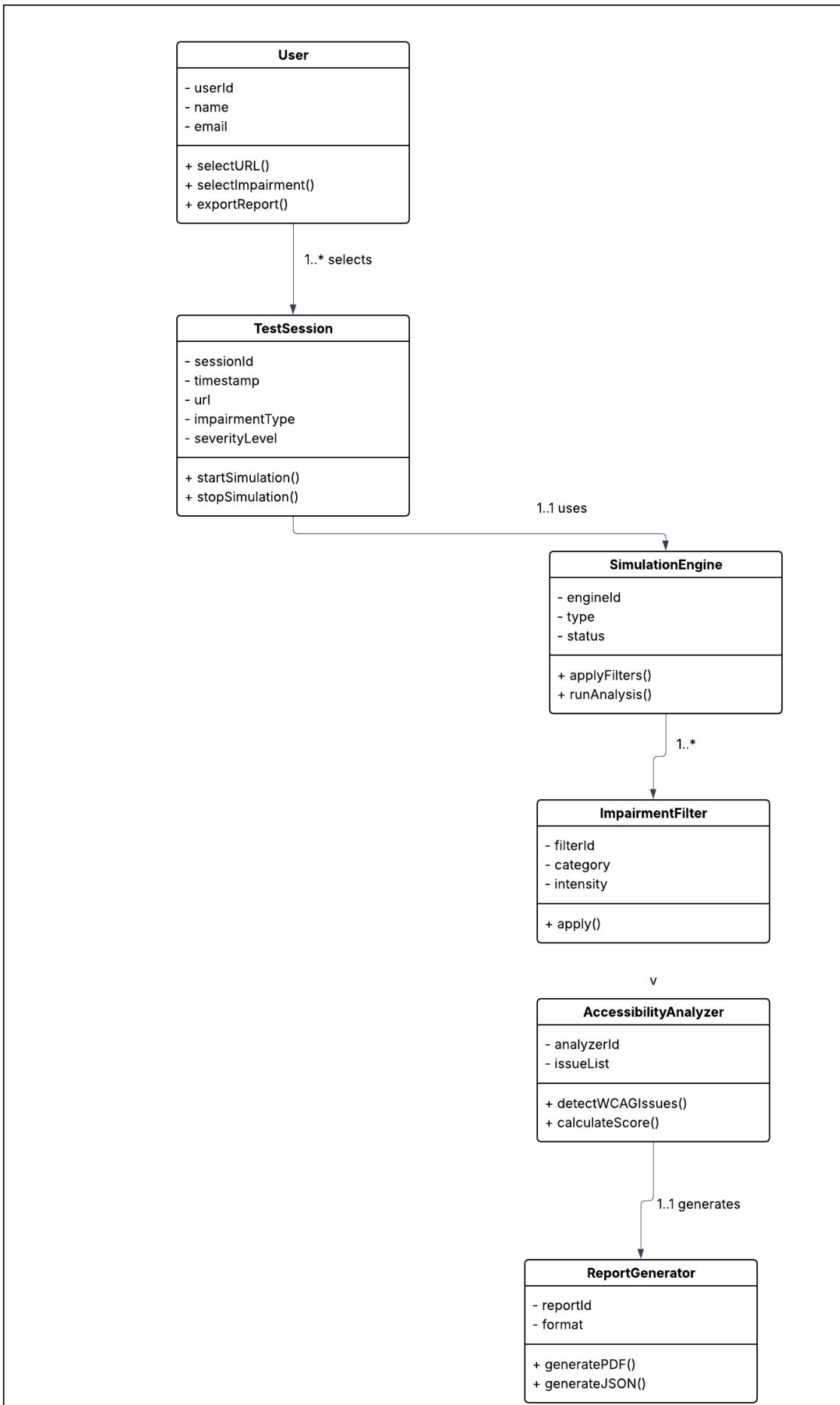
#### 6. ReportGenerator

Attributes	Operations
reportId	generatePDF()
reportData	generateCSV()
summary	addSimulationDetails()
exportFormat	exportReport()

## 7. Session

Attributes	Operations
sessionId	startSession()
userId	endSession()
simulationId	trackActivity()
timestamp	saveSession()

## System Design (Domain Modeling + Class Diagram)



My class diagram models the system by showing how the User interacts with the Simulator to test accessibility impairments. The Website class holds URL and content details. The SimulationEngine applies visual, motor, and cognitive filters. The Report class processes detected issues and exports results. All classes work together to provide an accessibility testing workflow.