

# Workshop 2

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## 1 Review Workshop #1 Findings

## 2 Define System Requirements

### 2.1 Functional Requirements

#### 2.1.1 Data Capture and Storage

**RF-001** Capture all user interactions including hovers, clicks, and drags with their respective `x,y` coordinates and timestamp.

**RF-002** Assign a unique `session.id` per game session.

**RF-003** Link all interactions to a specific `user.id`.

**RF-004** Store user configuration settings including `full.screen`, `hq`, and `music.volume`.

**RF-005** Save the `level.group` and question progress.

#### 2.1.2 Data Processing and Normalization

**RF-006** Remove erroneous or duplicate clicks (condition:  $\geq 90$ ms between clicks).

**RF-007** Normalize `x,y` coordinates by standardizing to a key resolution.

**RF-008** Extract temporal features: time between events, response speed.

**RF-009** Extract spatial features: movement patterns like trajectories.

**RF-010** Extract contextual features: difficulty level and number of retries.

#### 2.1.3 Prediction Model

**RF-011** `screen.coor.x/y`: Mouse position at critical questions.

**RF-012** `event.name`: Actions like `cutscene.click` or `map.click`.

**RF-013** `elapsed.time`: Cumulative time in session.

**RF-014** `hover.duration`: Time spent on interactive elements.

## **2.2 Non-Functional Requirements**

### **2.2.1 Performance**

### **2.2.2 Reliability**

### **2.2.3 Safety**

### **2.2.4 Ease of use**

### **2.2.5 Interoperability**

## **3 High-Level Architecture**

## **4 Addressing Sensitivity and Chaos**

## **5 Technical Stack and Implementation Sketch**