# 1. Block 4.2: CS6514: Software Architecture Design Portfolio

iDavie Case Study Art Ó Liathain October 2025

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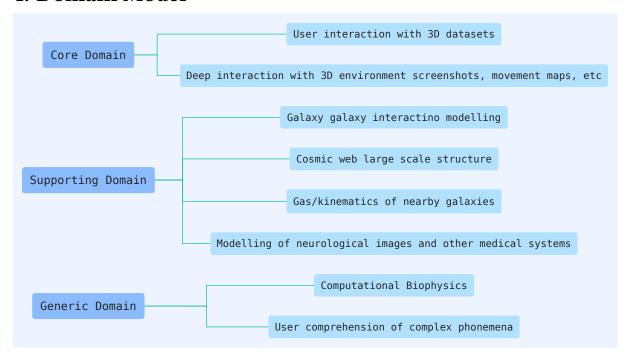
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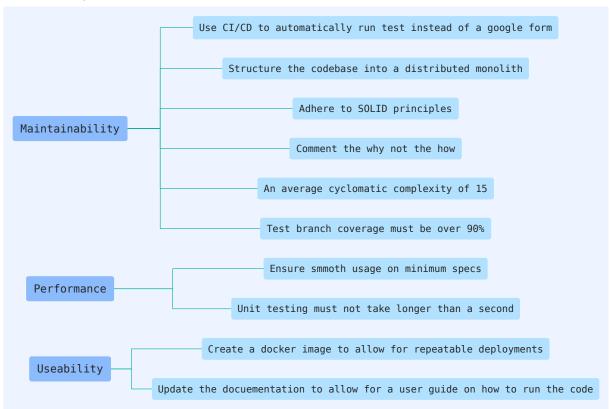
#### 3. Tech Stack

#### 4. Domain Model



Listing 1: Domain Model

#### 5. Utility Tree



Listing 2: Utility Tree

## 6. Use case diagram

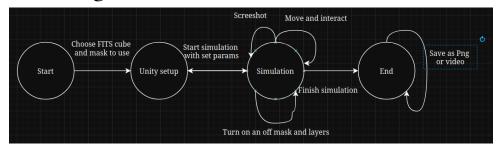


Figure 1: Use case state machine

## 7. Codescene

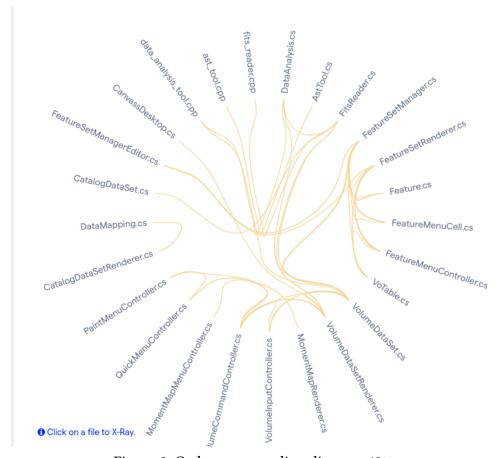


Figure 2: Codescene coupling diagram 40%

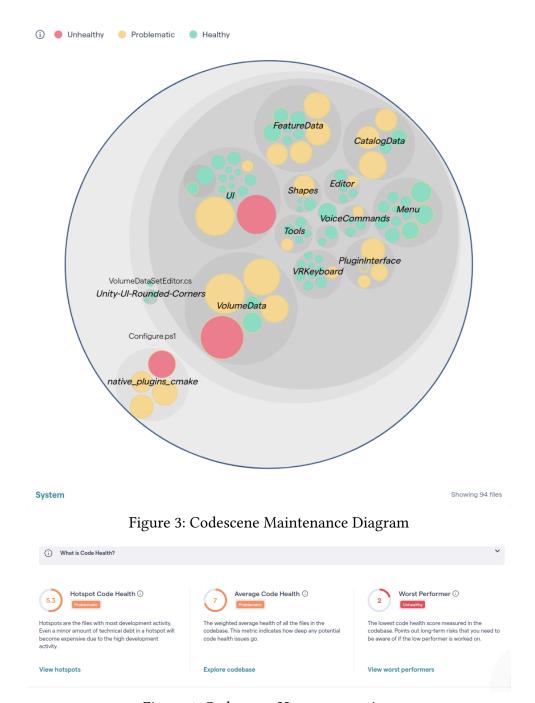


Figure 4: Codescene Hotspot overview

## 8. Sonarqube



Figure 5: Sonarqube cyclomatic complexity



Figure 6: Sonarqube maintainability

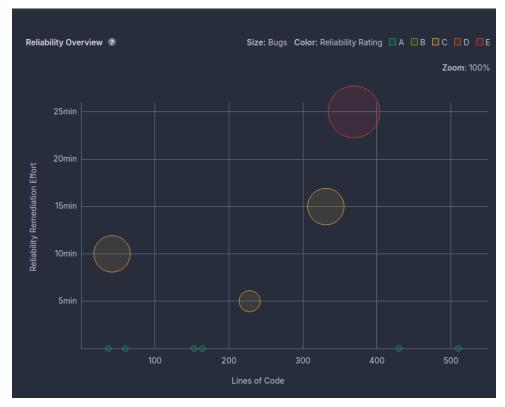


Figure 7: Sonarqube reliability graph



Figure 8: Duplications Graph

# 9. Understand Code Analysis

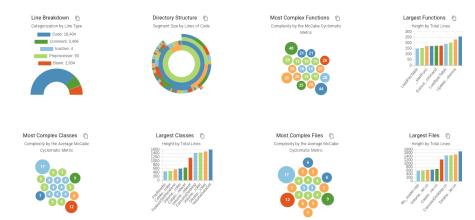


Figure 9:

## 10. Class Diagrams



Figure 10:

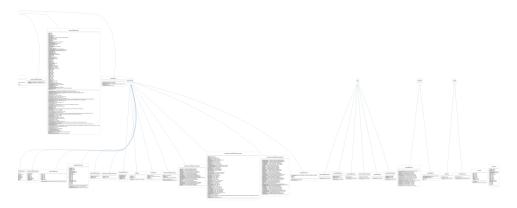


Figure 11:

# 11. C4 Diagram

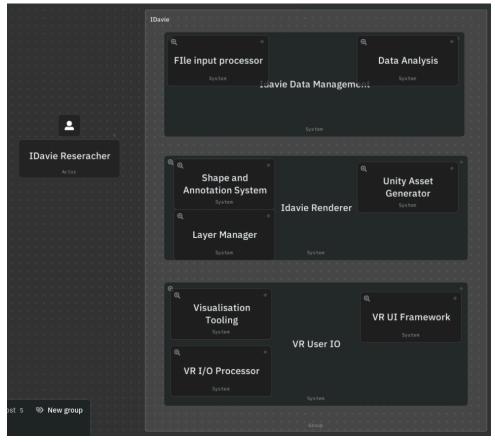


Figure 12: C4 Diagram