



POLITECNICO MILANO 1863

Data4Help

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DD - Design Document

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1 Introduction

1.1 Purpose

1.2 Scope

1.3 Definitions, Acronyms, Abbreviations

1.3.1 Definitions

- **Client:**
- **Server:**
- **n-tier:**
- **n-layer:**
- **Design Pattern:**

1.3.2 Acronyms

MVCS	Model-View-Controller-Store
DBMS	Data Base Management System
REST	REpresentational State Transfer
API	Application Programming Interface
OS	Operating System
UI	User Interface
QA	Quality Assurance

Table 1: Acronyms

1.3.3 Abbreviations

- **(Rn):** n-th Requirement

1.4 Revision history

Version	Date	Changes
1.1	12/11/2018	Initial draft
1.2	10/12/2018	First deadline draft

Table 2: Revision History

1.5 Reference Documents

- ISO/IEC/IEEE 29148: <https://www.iso.org/standard/45171.html>

- Alloy Official Documentation: <http://alloy.lcs.mit.edu/alloy/documentation.html>
- Four Dark Corners of Requirements Engineering – Jackson, Zave
- Project Assignment

1.6 Document Structure

2 Architectural Design

2.1 Overview

2.2 Component view

2.3 Deployment view

2.4 Runtime view

2.5 Component interfaces

2.6 Selected architectural styles and patterns

2.7 Other design decisions

3 User Interface Design

4 Requirements Traceability

Component (DD)	Requirements (RASD)
Authentication Manager	<ul style="list-style-type: none">• R1• R2• R3• R4• R5• R36• R44
Single User Manager	<ul style="list-style-type: none">• R33

Single Request Manager	<ul style="list-style-type: none"> • R10 • R11 • R12 • R13 • R14 • R18 • R19 • R20 • R21 • R22 • R23 • R24 • R40 • R42 • R42 • R48
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Group Request Manager	<ul style="list-style-type: none"> • R25 • R26 • R27 • R28 • R29 • R29 • R31 • R20 • R32 • R24
Data Storage Manager	<ul style="list-style-type: none"> • R30
Data Manager (Client)	<ul style="list-style-type: none"> • R7 • R8
Data Manager (Server)	<ul style="list-style-type: none"> • R7 • R8 • R9
Health Status Manager	<ul style="list-style-type: none"> • R15 • R16 • R17

AutomatedSOS Manager	<ul style="list-style-type: none"> • R33 • R34 • R35
Run Manager	<ul style="list-style-type: none"> • R36 • R37 • R38 • R40 • R41 • R45 • R46 • R47 • R49
Active Runs Manager	<ul style="list-style-type: none"> • R39 • R43 • R47 • R49 • R50 • R51 • R52

Table 3: Requirements Traceability

5 Implementation, Integration and Test Plan

6 Effort Spent

7 References