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University of Pretoria

COS 730

Software Engineering 1

UPRM

University of Pretoria Research Manager
Software Requirements Specification

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1 Introduction

1.1 Purpose

This document serves as the software requirements specification for UPRM (University of Pretoria Research Manager). The requirements will include both the functional and non-functional requirements. This document is written as a requirements guideline for the software enigineers and any other party involved in the creation of UPRM.

1.2 Scope

The UPRM scope consists of a/an,

- research manager, known as RM.
- statistics query tool, known as RMSQ.
- report generator tool, known as RMR.

Description of each product within the scope of UPRM:

- RM -
- RMSQ -
- RMR -

1.3 Definitions, Acronyms and Abbreviations

- **UPRM** - The system at hand, University of Pretoria Research Manager
- **RM** - Research Manager
- **RMSQ** - Research Manager Statistics Query Tool
- **RMR** - Research Manager Reports

1.4 References

[Microsoft 2015] Msdn.microsoft.com, (2015). Chapter 16: Quality Attributes. [online] Available at: https://msdn.microsoft.com/en-us/library/ee658094.aspx [Accessed 14 February 2016].

[Stearns Prof.] Users.csc.calpoly.edu, (2016). Stearn Quality Attributes. [online] Available at: http://users.csc.calpoly.edu/ jdalbey/SWE/QA/QualityAttributesStearns.html [Accessed 14 February 2016].

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3.2.1 Functional Requirement/Feature Name

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3.3.1 Use Case Name or Number

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3.4.1 Class/Objects Name or Number

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3.5.1 Performance

3.5.2 Reliability

3.5.3 Availability

3.5.4 Security

Security is one of the most significant non-functional requirements as the data that is processed and stored by UPRM is of a sensitive nature. A vast amount of research ideas and the progress status on current research will be stored by UPRM needless to say, if such data falls into the wrong hands it could jeopardise the research project or the idea of the research.

In terms of security, UPRM should,

- never reveal the current progress of research projects to unauthorized parties.
- never reveal future research ideas to unauthorized parties.
- prevent the loss of any data (personal and research related data).

In terms of security requirements, UPRM should,

- make use of strong passwords.
- utilise two step verification.
- make sure that password resets is done by an administrator.

3.5.5 Maintainability

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