

Requirements Document

Student Performance Analysis

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1 Introduction

1.1 Purpose

The purpose of this document is to highlight the requirements in terms of features and functions that are expected from the final deliverable that will be a recommender system.

1.2 Scope

The final product will be an Academic Behaviour Recommendation System. The software will use the information gathered from click log files, syllabi and student grades to recommend for a certain student entry in that particular class the behaviours that were generally observed in that class which led to a good grade but were missing from that particular student's behaviour. The information about the behaviours is computed using a log file containing data about websites visited by the student during the course of the semester the class was taken in and does not consider what the student does beyond the web browser.

1.3 Definitions, Acronyms and Abbreviations

- ABRS - Academic Behaviour Recommendation System
- Behaviours - when used in the context of the data means the model in which the data is correlated to resemble a certain behaviour in real life. for instance, a student accessing an assignment link only 1 day before it was due may be a behaviour that may be interesting while correlating to grades.
- Log files - Excel files containing raw data i.e. 'clicks' from student over the course of the semester
- Syllabus - Document entailing details about a certain course. This includes test dates, assignment due dates etc.
- Grades - Lettered grade ranging from A - F where A is the best grade.

1.4 References

1. IEEE SRS standards guide - <http://www.math.uaa.alaska.edu/~afkjm/cs401/IEEE830.pdf>
2. IEEE SRS L^AT_EXGuide - <https://github.com/jpeisenbarth/SRS-TeX/blob/master/srs.tex>
3. Requirements document specifications - <http://cs.fit.edu/~pkc/classes/seniorProjects/document.html>

1.5 Overview

The entirety of this document is formatted and authored using the IEEE standards guide as well as the Requirements specified by the Instructor (See 1.4). The remainder of the document contains a detailed description of the project (See 2) and requirements (See 3) categorized by functional and non-functional.

2 Overall Description

2.1 Product Perspective

2.2 Product functions

2.3 User characteristics

2.4 Constraints

2.5 Assumptions and dependencies

3 Specific Requirements