# Grade prediction and performance application

Part A – Requirements

## Functional requirements summary

<R1>The software allows the user to build a course.</R1>

<description>The user is able to build a course in order to find out the outcome of his degree, real or by predicting marks.</description>

<R2>The software shall allow the user to record the name of the course.</R2>

<description>The student is able to change courses, so he should be able to change the name of the course.</description>

<R3>The software shall allow the user to add modules to the course.</R3>

<description>The student can create modules and add them to the course.</description>

<R4>The software shall allow the user to add a credit value to each module.</R4>

<description>Each module has a credit value. Most of them are 15 credits but there are also modules with 30 credits. There is also a final year project worth 45 credits. Therefore, the user should be able to add a credit value to the each module.</description>

<R5>The software shall allow the user to input assessments(tutorial, coursework, exam) for each module.</R5>

<description>The user can add assessments to each module, including a tutorial exercise, coursework, exam et al. Each assessment has name and weight.</description>

<R6>The software should show the new module added.</R6>

<description>After each module entry, if everything is correct, the module will be shown in the software. However, some information can be deleted in case some of errors. For example if the assessments do not add up to 100% or invalid weight for assessments.</description>

<R7>The software shall allow the user to add modules until the course is complete.</R7>

<description>A course should be complete when the sum of 120 credits per year has been reached in all three years of study.</description>

<R8>The software shall allow the user to save the status of his course.</R8>

<description>The user should be able to save the status of his course using a save button. The user can also save any changes on exit. A dialog should appear when exiting and asking if the user wants to save any changes.</description>

<R9>The software shall continue from the last edit version.</R9>

<description>If the software is not at its first run, then it should use the existing data to build the interface and resume to the last edit stage.</description>

<R10>The software shall save the file changes in the background.</R10>

<description>The software will save changes in the background to simulate writing to a database.</description>

<R11>The software shall update any changes in the summary tab (level summary and main one) as the user edits any module details for the purpose of predicting the outcome of his degree.</R11>

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<R12>The software shall allow the user to add modules for 3 years of study.</R12>

<description>The user can add modules for 3 years of study. Each module will have a credit amount. All modules should add to 120 credits per year.</description>

<R13>The software shall show results on each level summary.</R13>

<description>On a level summary the user can see the outcome of each module. For example: User Experience Design: 45% Pass or 35% Referral or 25% Fail.</description>

<R14>The software shall have a main Summary tab where the user can see the final outcome for each level of study and the final outcome of their degree.</R14>

<description>The main summary tab will cover all three levels of study with each percentage and the final outcome for the user’s degree. For example: level 4: 44%, level 5: 60% , level 6: 75%. Outcome: second upper class degree.</description>

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## Non functional requirements