

Project Requirements

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October 5, 2019

Abbreviations and Related Terms

- ABET - Accreditation Board for Engineering and Technology
- DSU - Dean of Undergraduate Studies
- SLO - Student Learning Outcomes
- ADA - Americans with Disabilities Act
- FERPA - Family Education Rights and Privacy Act
- PPRA - Protection of Pupil Rights Amendment

Business Requirements

- BR1. The client wants to allow professors to be able to upload SLO evaluation information to a website
- BR2. The client wants to increase the number of professors reporting SLO evaluations
- BR3. The client wants to disseminate guides and informational documents about SLO evaluations to professors
- BR4. The client wants to correct false assertions about SLO evaluations
- (a) The client wants to emphasize that SLO evaluations are not grades
 - (b) The client wants to emphasize that SLO evaluations are not weighted (i.e. meeting—not exceeding—an SLO is expected)
 - (c) The client wants to emphasize that SLO evaluations are not evaluations of professors

- BR5. The client wants to make maintaining and creating documentation for ABET accreditation more streamlined
- BR6. The client wants to meet ADA compliance to ensure the system is accessible to all users
- BR7. The client wants to meet FERPA compliance to ensure the system protects sensitive information
- BR8. The client wants to meet PPRA compliance to ensure the system protects sensitive information
- BR9. The client wants to have a class portfolio that contains a class score for the SLO evaluations (computed as the average of the student learning outcome scores)
- BR10. The client wants to have a class portfolio file that contains all of the necessary student learning outcome information
 - (a) Nameless student submissions with rubric and evaluation
 - (b) Number of students in each category (exceeds, meets, partially, not)
 - (c) An artifact score (computed as the % of students who meet or exceeded the expectations for that artifact)
 - (d) A student learning outcome score (computed as the average of the three artifact scores)

Functional Requirements

- FR1. The system shall create a form for professors to input information for SLO evaluations
- FR2. The system shall output a zip file for each class portfolio after completion of SLO evaluations
- FR3. The system shall allow an administrator user to assign SLOs to other users
- FR4. The system shall mark course portfolios as read-only after a predefined period of time
- FR5. The system shall display messages about SLO evaluation information as described in business requirements BR4

- FR6. The system shall verify that the minimum number of artifacts has been uploaded for each SLO
- FR7. The system shall display messages to confirm successful entry of SLO evaluations
- FR8. The system shall include a link to user documentation about the system at all times
- FR9. The system shall include link for guides and informational documents about SLO evaluations
- FR10. The system shall compute an artifact score for each artifact based on the percentage of of students who meet or exceed the expectations of said artifact
- FR11. The system shall compute a learning outcome score for each set of artifacts based on the average of the artifacts given for a SLO
- FR12. The system shall compute a class score for a class portfolio based on the average SLO scores

Non-Functional Requirements

- NFR1. The system should not ask for any personal identifying information during SLO evaluation entry
- NFR2. The system should not include any personal identifying information in the zip output
- NFR3. The system should contain at least three evaluations per SLO before output can be given
- NFR4. The system should randomly select a group of students for student evaluations with a maximum size of 20% or 10 students for SLO evaluations
- NFR5. The system should handle login through linkblue
- NFR6. The system will use a MySQL database to store SLO evaluations
- NFR7. The system will use text that has a color contrast ratio of 4.5 or greater to the background

NFR8. The system will specify alternate text for images

NFR9. The system will allow clickable elements to be accessible by a keyboard

NFR10. The system will allow users to upload documents to accompany artifacts in a class portfolio

User Assumptions

- An artifact is a single evaluation of a single assignment that the students have been assigned and completed
- Wait period for marking course portfolios as read-only is defined/adjusted by an administrator user of the system
- Professors do not have to do random selection of students for SLO evaluations
- Professors do not have to manually enter SLO evaluation descriptions; an administrator user will input those for the professors to select from

Requirements Traceability Matrix		
Business Requirements	Functional Requirements	Non-Functional Requirements
BR1	FR1	
BR2	FR5	
BR3	FR5 FR8 FR9	
BR4	FR5	
BR5	FR1 FR2 FR3 FR6 FR7	NFR3 NFR4
BR6		NFR7 NFR8 NFR9
BR7		NFR1 NFR2
BR8		NFR1 NFR2
BR9	FR2 FR10	
BR10	FR2 FR11 FR12	NFR10