Schedule Optimizer
Requirements Traceability Matrix

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History Revision:

Revision Date	Person Responsible	Version Number	Modification
11/18/2019	Antonio Cavan	1.0	Created Document. Added Use Cases
11/18/2019	Engelberg See	2.0	Added Scenarios
11/19/2019	Antonio Cavan	3.0	Added and Developed UC 1.0 UAT, UC2.0 UAT: UC 2.1 to UC 2.1.1
11/19/2019	Engelberg See	4.0	Added and Developed UC2.0 UAT: UC 2.1.2 to UC 2.4
11/19/2019	John Matthew Ramos	5.0	Added and Developed UC 3.0 UAT: UC3-S1, UC3-S2, UC3-S3, UC3-S4

Use Case No.	Description
UC1.0	Create Account
UC2.0	Make Schedule
UC2.1	Indicate desired Subjects
UC2.1.1	Add Subjects
UC2.1.2	Edit Subjects
UC2.1.3	Delete Subjects
UC2.2	Indicate Preferences
UC2.2.1	Add a Preference
UC2.2.2	Edit Category or Priority of a Preference
UC2.2.3	Delete a Preference
UC2.3	Generate Schedules
UC2.4	View Schedules
UC3.0	Save to Gallery

Use Case No.	Scenario No.	RTM ID	Scenario Description	Priority Status
UC1.0	S1	UC1-S1	Successful Log-in	Must Have
UC1.0	S2	UC1-S2	Invalid Username	Must Have
UC1.0	S3	UC1-S3	Invalid Password	Must Have
UC1.0	S4	UC1-S4	Non-registered user	Should have
UC1.0	S5	UC1-S5	No database connection	Must Have
UC2.0	S1	UC2-S1	Successfully started making a schedule	Must Have
UC2.0	S1	UC2.1-S1	Successfully started indicating subjects	Must Have
UC2.1.1	S1	UC2.1.1-S1	Successfully added desired subjects	Must Have
UC2.1.1	S2	UC2.1.1-S2	Invalid: Subject does not exist	Should have
UC2.1.1	S3	UC2.1.1-S3	No database connection	Must Have
UC2.1.1	S4	UC2.1.1-S4	Indicated subjects exceed limit	Should have
UC2.1.1	S5	UC2.1.1-S5	No subjects selected	Should have
UC2.1.2	S1	UC2.1.2-S1	Successfully edited hierarchy of subjects	Must Have
UC2.1.2	S2	UC2.1.2-S2	No subject selected	Must Have
UC2.1.2	S3	UC2.1.2-S3	No subjects to be edited	Should have
UC2.1.3	S1	UC2.1.3-S1	Sucessfully deleted subject	Must Have
UC2.1.3	S2	UC2.1.3-S2	No subjects to be deleted	Should have
UC2.1.3	S3	UC2.1.3-S3	No subject selected	Should have
UC2.2	S1	UC2.2-S1	Successfully started indicating preferences	Must Have
UC2.2.1	S1	UC2.2.1-S1	Successfully added three desired preferences	Must Have
UC2.2.1	S2	UC2.2.1-S2	No preferences selected	Should have
UC2.2.2	S1	UC2.2.2-S1	Successfully edited priority of preferences	Must Have
UC2.2.2	S2	UC2.2.2-S2	No preferences selected	Should have
UC2.2.2	S3	UC2.2.2-S3	No preferences to be edited	Should have
UC2.2.3	S1	UC2.2.3-S1	Sucessfully deleted preference	Must Have
UC2.2.3	S2	UC2.2.3-S2	No preferences to be deleted	Should have
UC2.2.3	S3	UC2.2.3-S3	No preferences selected	Should have
UC2.3	S1	UC2.3-S1	Sucessfully generated schedules	Should have
UC2.3	S2	UC2.3-S2	Failed to generate schedules	Must Have
UC2.3	S3	UC2.3-S3	No database connection	Should have
UC2.4	S1	UC2.4-S1	Sucessfully viewed schedule	Must Have
UC2.4	S2	UC2.4-S2	No schedules to be viewed	Should have
UC3.0	S1	UC3-S1	Successfully Saved	Must Have
UC3.0	S2	UC3-S2	Insufficient Storage	Should have

Use Case No.	Scenario No.	RTM ID	Scenario Description	User Name Valid	User Password Valid	User Account exists in system	Database connection active	Expected Results
UC1.0	S1	UC1-S1	Successful Log-in	rjcsolamo	password	Yes	Yes	Home page will be displayed
UC1.0	S2	UC1-S2	Invalid Username	norjcsolamo	password	Yes	Yes	Error Message: Invalid User Name
UC1.0	S3	UC1-S3	Invalid Password	rjcsolamo	nopassword	Yes	Yes	Error Message: Invalid Password
UC1.0	S4	UC1-S4	Non-registered user	mesolamo	password	No	Yes	Error Message: User not registered.
UC1.0	S5	UC1-S5	No database connection	rjcsolamo	password	Yes	No	Error Message: Timeout

Use Case No.	Scenario No.	RTM ID	Scenario Description	List of Subjects	Subject Query	Preferred Subject Exist in Database?	List of Preferences	Preferences Query	List of Schedules	Schedule Query	Database Connection Active?	Expected Results
UC2.0	S1	UC2-S1	Successfully started making a schedule		N/A	N/A	N/A	N/A	N/A	N/A	Yes	Indicate Subject tab appears with an empty list of subjects
UC2.1	S1	UC2.1-S1	Successfully started indicating subjects	CS 191 CS 176 CS 130 Stat 130 CS 133	Bio 1	Yes	N/A	N/A	N/A	N/A	Yes	Search bar succesfully show suggestions based from User input
UC2.1.1	S1	UC2.1.1-S1	Successfully added desired subject	CS 191 CS 176 CS 130 Stat 130 CS 133	Bio 1	Yes	N/A	N/A	N/A	N/A	Yes	Succesfully added subject. Displays updated subjects list.
UC2.1.1	S2	UC2.1.1-S2	Invalid: Subject does not exist	Bio 1 CS 191 CS 176 CS 130 Stat 130 CS 133	VS 2391	No	N/A	N/A	N/A	N/A	Yes	Error Message: Subject does not exist in the database.
UC2.1.1	S3	UC2.1.1-S3	No database connection	Bio 1 CS 191 CS 176 CS 130 Stat 130 CS 133	Fil 40	Yes	N/A	N/A	N/A	N/A	No	Error Message: Connection Timeout
UC2.1.1	S4	UC2.1.1-S4	Indicated subjects exceed limit	Bio 1 CS 191 CS 176 CS 130 Stat 130 CS 133	CS 191	Yes	N/A	N/A	N/A	N/A	Yes	Error Message: Subjects selected exceed maximum amount.
UC2.1.1	S5	UC2.1.1-S5	No subjects selected	Bio 1 CS 191 CS 176 CS 130 Stat 130 CS 133	N/A CS 191 CS 176 CS 130 Stat 130 Bio 1	Yes	N/A	N/A	N/A	N/A	Yes	Error Message: No subjects selected.
UC2.1.2	S1	UC2.1.2-S1	Successfully edited hierarchy of subjects	Bio 1 CS 191 CS 176 CS 130 Stat 130 CS 133	CS 133	Yes	N/A	N/A	N/A	N/A	Yes	Succesfully edited hierarchy of subjects. Displays updated subjects list.
UC2.1.2	S2	UC2.1.2-S2	No subject selected	Bio 1	N/A	Yes	N/A	N/A	N/A	N/A	Yes	Error Message: No subjects selected.
UC2.1.2	S3	UC2.1.2-S3	No subjects to be edited	CS 191 CS 176 CS 130 Stat 130 CS 133	CS 191	No	N/A	N/A	N/A	N/A	Yes	Error Message: No subjects to edit.
UC2.1.3	S1	UC2.1.3-S1	Successfully deleted subject	Bio 1	Bio 1	Yes	N/A	N/A	N/A	N/A	Yes	Succesfully deleted subject. Displays updated subjects list.
UC2.1.3	S2	UC2.1.3-S2	No subjects to be deleted	CS 191 CS 176 CS 130 Stat 130 CS 133	Bio 1	No	N/A	N/A	N/A	N/A	Yes	Error Message: No subjects to delete.
UC2.1.3	S3	UC2.1.3-S3	No subject selected	Bio 1 CS 191 CS 176 CS 130 Stat 130 CS 133	N/A	Yes	N/A	N/A	N/A	N/A	Yes	Error Message: No subjects selected.
UC2.2	S1	UC2.2-S1	Successfully started indicating preferences	Bio 1 CS 191 CS 176 CS 130 Stat 130 CS 133	N/A	N/A			N/A	N/A	Yes	Indicate Preference tab appears with three preferences to choose from.
UC2.2.1	S1	UC2.2.1-S1	Successfully added three desired preferences	Bio 1	N/A	N/A	Pedagogy Easiness	Helpfulness	N/A	N/A	Yes	Successfully indicated preferences. Displays preference list.

Use Case No.	Scenario No.	RTM ID	Scenario Description	List of Subjects	Subject Query	Preferred Subject Exist in Database?	List of Preferences	Preferences Query	List of Schedules	Schedule Query	Databse Connection Active?	Expected Results
UC2.2.1	S2	UC2.2.1-S2	No preferences selected	CS 191 CS 176 CS 130 Stat 130 CS 133 Bio 1	N/A	N/A	Pedagogy Easiness Helpfulness	N/A	N/A	N/A	Yes	Error Message: No Preferences Selected
UC2.2.2	S1	UC2.2.2-S1	Successfully edited priority of preferences	CS 191 CS 176 CS 130 Stat 130 CS 133 Bio 1	N/A	N/A	Pedagogy Easiness Helpfulness	Pedagogy Helpfulness Easiness	N/A	N/A	Yes	Successfully edited preferences. Displays updated preference list.
UC2.2.2	S2	UC2.2.2-S2	No preferences selected	CS 191 CS 176 CS 130 Stat 130 CS 133 Bio 1	N/A	N/A	Pedagogy Helpfulness Easiness	N/A	N/A	N/A	Yes	Error Message: No Preferences Selected
UC2.2.2	S3	UC2.2.2-S3	No preferences to be edited	CS 191 CS 176 CS 130 Stat 130 CS 133 Bio 1	N/A	N/A		Pedagogy Helpfulness Easiness	N/A	N/A	Yes	Error Message: No preferences to edit.
UC2.2.3	S1	UC2.2.3-S1	Sucessfully deleted preference	CS 191 CS 176 CS 130 Stat 130 CS 133 Bio 1	N/A	N/A	Pedagogy Helpfulness Easiness	Easiness	N/A	N/A	Yes	Successfully deleted preference. Displays updated preference list.
UC2.2.3	S2	UC2.2.3-S2	No preferences to be deleted	CS 191 CS 176 CS 130 Stat 130 CS 133 Bio 1	N/A	N/A		Pedagogy	N/A	N/A	Yes	Error Message: No preferences to delete.
UC2.2.3	S3	UC2.2.3-S3	No preferences selected	CS 191 CS 176 CS 130 Stat 130 CS 133 Bio 1	N/A	N/A	Pedagogy Helpfulness Easiness	N/A	N/A	N/A	Yes	Error Message: No Preferences Selected
UC2.3	S1	UC2.3-S1	Succesfully generated schedules	CS 191 CS 176 CS 130 Stat 130 CS 133 Bio 1	N/A	N/A	Pedagogy Helpfulness Easiness	N/A	Schedule - Pedagogy Schedule - Helpfulness Schedule - Easiness	N/A	Yes	Successfully generated schedules. Displays Schedules tab.
UC2.3	S2	UC2.3-S2	Failed to generate schedules	CS 191 CS 176 CS 130 Stat 130 CS 133 Bio 1	N/A	N/A	Pedagogy Helpfulness Easiness	N/A		N/A	Yes	Error Message: No Schedules generated.
UC2.3	S3	UC2.3-S3	No database connection	CS 191 CS 176 CS 130 Stat 130 CS 133 Bio 1	N/A	N/A	Pedagogy Helpfulness Easiness	N/A	Schedule - Pedagogy Schedule - Helpfulness Schedule - Easiness	Schedule - Pedagogy	No	Error Message: Connection Timeout
UC2.4	S1	UC2.4-S1	Sucessfully viewed schedule	CS 191 CS 176 CS 130 Stat 130 CS 133 Bio 1	N/A	N/A	Pedagogy Helpfulness Easiness	N/A	Schedule - Pedagogy Schedule - Helpfulness Schedule - Easiness	Schedule - Pedagogy	Yes	Displays selected schedule.
UC2.4	S2	UC2.4-S2	No schedules to be viewed	CS 191 CS 176 CS 130 Stat 130 CS 133 Bio 1	N/A	N/A	Pedagogy Helpfulness Easiness	N/A		Schedule - Pedagogy	Yes	Error Message: No Schedules to view.

Use Case No.	Scenario No.	RTM ID	Scenario Description	List of subjects present in database	List of subject time present in database	Schedule present in database	Database connection active	Expected Results
UC3.0	S1	UC3-S1	Successfully Saved	CS 191 CS 176 CS 130 Stat 130 CS 133	WF 10:00 AM-11:30 AM TTH 1:00 PM-2:30 PM WF 8:30 AM- 10:00 AM WF 1:00 PM-2:30 PM TTH 2:30 PM-4:00 PM	yes	yes	Schedule successfully saved in gallery.
UC3.0	S2	UC3-S2	Insufficient Storage	CS 191 CS 176 CS 130 Stat 130 CS 133	WF 10:00 AM-11:30 AM TTH 1:00 PM-2:30 PM WF 8:30 AM- 10:00 AM WF 1:00 PM-2:30 PM TTH 2:30 PM-4:00 PM	yes	yes	Error Message: Insufficient Storage
UC3.0	S3	UC3-S3	No database conne	CS 191 CS 176 CS 130 Stat 130 CS 133	WF 10:00 AM-11:30 AM TTH 1:00 PM-2:30 PM WF 8:30 AM- 10:00 AM WF 1:00 PM-2:30 PM TTH 2:30 PM-4:00 PM	yes	no	Error Message: Timeout
UC3.0	S4	UC3-S4	No schedule preser	N/A	N/A	no	yes	Error Message: Schedule not available.