

Software Requirements Specification

for

FGCU Complete Emailing Tool

Version 1.1 approved

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Table of Contents

Introduction.....	Error! Bookmark not defined.
1.1 Purpose.....	Error! Bookmark not defined.
1.2 Scope.....	Error! Bookmark not defined.
Product Name.....	Error! Bookmark not defined.
Overview.....	Error! Bookmark not defined.
Goals	Error! Bookmark not defined.
Out of Scope	Error! Bookmark not defined.
1.3 Product Overview	Error! Bookmark not defined.
1.3.1 Product Perspective.....	Error! Bookmark not defined.
1.3.2 Product Functions	Error! Bookmark not defined.
1.3.3 User Characteristics	Error! Bookmark not defined.
1.3.4 Limitations	Error! Bookmark not defined.
2. References.....	Error! Bookmark not defined.
3. Specific Requirements	Error! Bookmark not defined.
4. Verification	Error! Bookmark not defined.
5. Appendices.....	Error! Bookmark not defined.
5.1 Assumptions and Dependencies	Error! Bookmark not defined.
5.2 Acronyms and Abbreviations	Error! Bookmark not defined.

Introduction

1.1 Purpose

The software presented within the following document involves an FGCU Complete emailing tool. The FGCU Complete emailing software is designed to send all the information about FGCU Complete to the right students (those who meet the intended constraints of the program). This tool has the purpose of increasing the participation through FGCU Complete to help more students get their degrees on time. The software achieves this by allowing the user (instructor of FGCU) to login to the system and provide different emails to students. Every student in the FGCU Database would be accessible for this software. The document “Software Requirements Specifications for FGCU Complete” is intended for developers, product management, and stakeholders. The purpose of the software being created is to provide help to those in faculty specifically for those working on FGCU Complete within the advising department. The organization’s strategic goals are to provide “returning students with the opportunity to accelerate completion of their degree” - Stakeholder.

1.2 Scope

Product Name

The product name is “FGCU Complete Emailing”

Overview

The software product should be able to take a database consisting of student GPAs and credit hours, select those students and then email specifically to those students.

Goals

The application of the specific software is that we will take this software and use it to collect information regarding the student emails which qualify for the program. After this information is selected the email formulated by faculty members will be emailed to these students. These students specifically qualify for eligibility in the program. The overall result that we want is to have more people inside the program. The software using Python, and SQL potentially or Excel will be used to automate the emailing process. After this process is automated, we can have more students enrolled. The relevant benefits that we have include the ability to reach out to more people, this leads to a projected increase in turn out.

The goal that we have from the implementation of the software is this should result in increased turn out by at least 10% and a time efficiency of an instant fashion. The reduction of time of

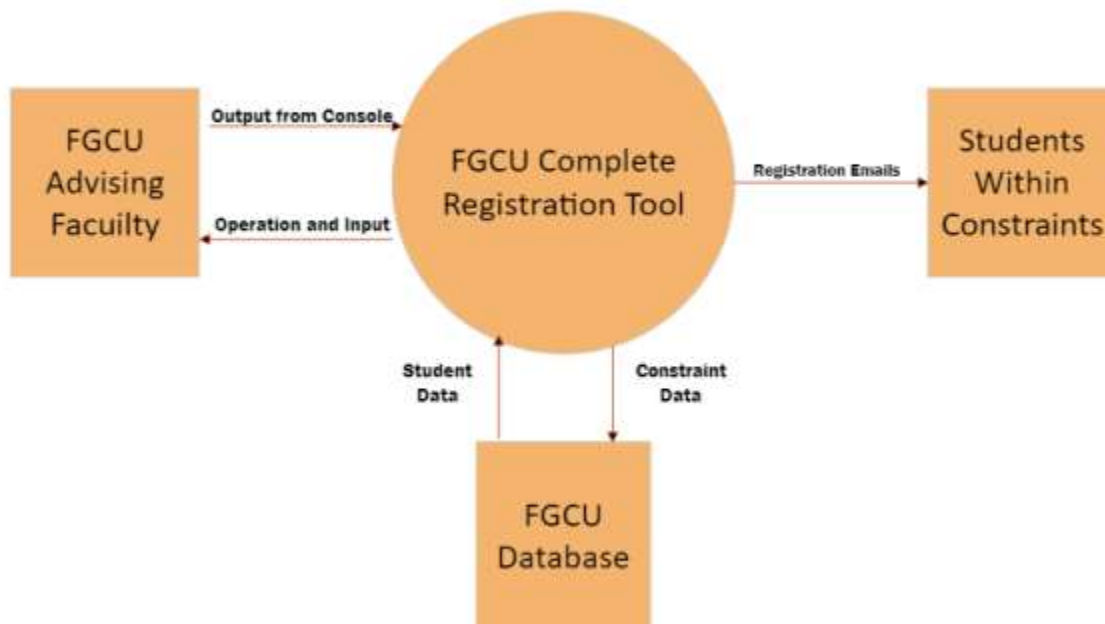
emailing students will decrease drastically as well as increasing the rate of accuracy. The program can be implemented in less than 3 weeks from the start of the development process.

Out of Scope

The out of scope inside the project involves but is not limited to inaccessible databases. If these databases are out of access the program will be unable to pull from the database. The database should be accessed or gone through in order for the program to work with the correct efficiency.

1.3 Product Overview

1.3.1 Product Perspective



The prospective of this product involves replacing the manual emailing system for advising FGCU faculty members connected to FGCU Complete. This project can be further expanded to include separate universities and separate programs within the university. Additionally, the implications of the software can be expanded for business operations with marketing groups to sell more products to customers.






1.3.2 Product Functions

- Pull information from database

- Give employees option to compose email
- Send out emails through program in automated schedule

1.3.3 User Characteristics

The user class for this operation would involve a main class which will be the operating class. This class will have access to the entire software and can only be accessed through a Faculty email account through Microsoft Outlook connected to FGCU.

Key	Summary	Description	T	P
BAN-38	As a FGCU advising faculty member, I want the capability of a send button so that I can send an email to the students selected when the time is convenient.	This user story also provides the constraint that the system has to output an email in a quantified time.		⤴
BAN-37	As a FGCU advising faculty member, I want to have the ability to compose emails inside the user interface so that I can give the student the most optimal information about our program.	The email string shall be created through a textbox inside the program.		=
BAN-36	As a FGCU advising faculty member, I want to deselect any student so that special circumstances can be accounted for.	There can be errors outside the system that shall be accounted for.		=
BAN-35	As a FGCU advising faculty member, I want to select any student so that special circumstances can be accounted for.	Some students may be outside of the database, a system that is unaccounted for.		=
BAN-32	As a FGCU advising faculty member, I want to email every student who has a minimum of a 2.0 GPA, at least 30 transferable credit hours, and above a "C" in an English composition course, so that the student can join FGCU Complete.	The main and only user for program.		⤴

1.3.4 Limitations

- Must have access to database
- The email must be a school email
- Software must be operated in python
















2. References

Kristen Vanselow- Interview conducted to seek out information regarding business practices.

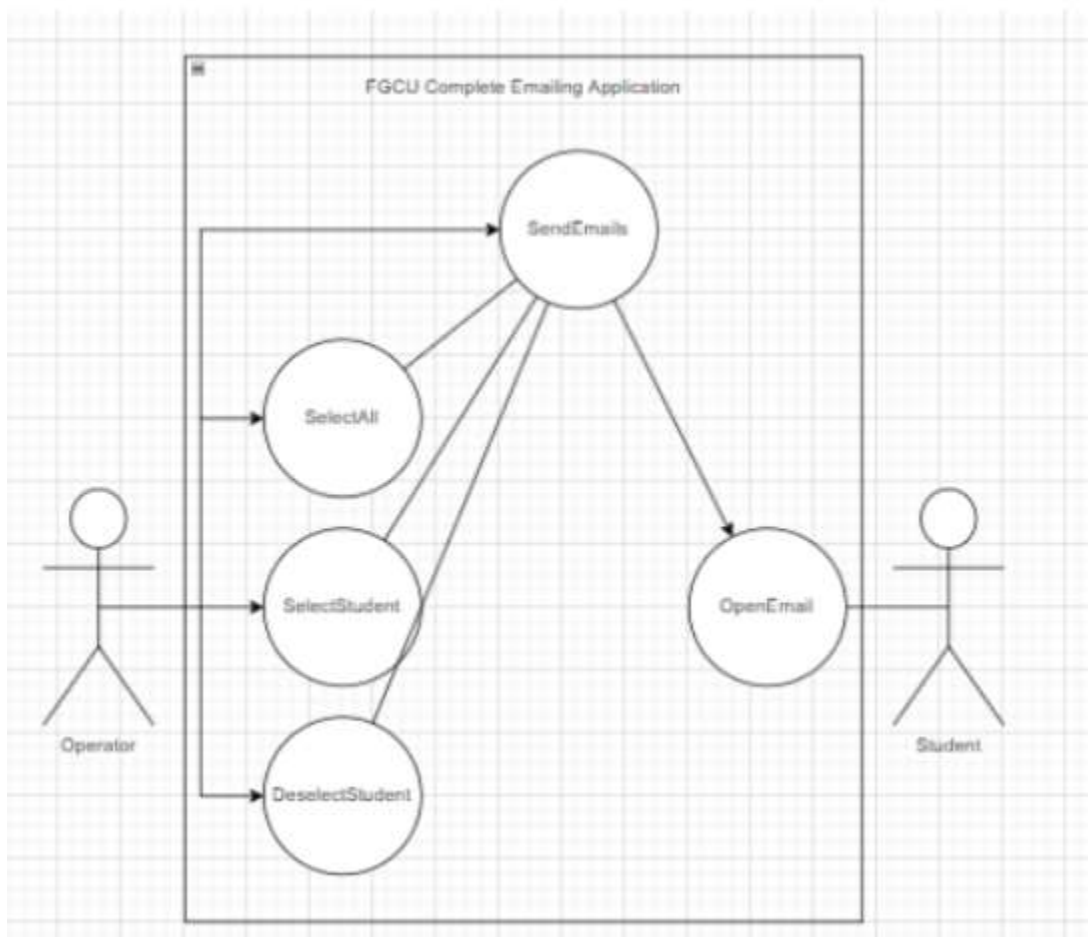
[FGCU Complete](#)- Explains key details regarding program.

3. Specific Requirements

User Stories:

	BAN-32	As a FGCU advising faculty member, I want to email every student who has a minimu...		TO DO	
	BAN-35	As a FGCU advising faculty member, I want to select any student so that special circu...		TO DO	
	BAN-36	As a FGCU advising faculty member, I want to deselect any student so that special cir...		TO DO	
	BAN-37	As a FGCU advising faculty member, I want to have the ability to compose emails insi...		TO DO	
	BAN-38	As a FGCU advising faculty member, I want the capability of a send button so that I c...		TO DO	

Use Case Diagram:



Use Cases:

UC ID and Name:	SendEmail = 12543		
Created By:	Kaden Carr	Date Created:	3/15/2022
Primary Actor:	Operator	Secondary Actors:	None
Trigger:	Operator clicks “send email” button		
Description:	The send email button will help the client		
Preconditions:	1. Sender email entered. 2. Email recipient selected. 3. Letter is initialized		
Postconditions:	1. The email recipient receives the letter from the sender email		
Normal Flow:	12543. 0. Operator hits the button labeled send email. 12543. 1. Operator System sends email to selected students		
Alternative Flows:	No alternative flows		
Exceptions:	12543. E1. The operator does not enter the selected list of a student/ Dialogue appears that states “Select student first”. 12543. E2. The operator does not have a valid school emailed entered/ Dialogue appears that states “Enter valid Faculty email”		
Priority:	High		
Frequency of Use:	Once per launch		
Business Rules:	1-Send to student emails 2-Use a faculty email		
Other Information:	Quality Attribute #1:		
Assumptions:	Assumption #1: The user has access to a faculty email Assumption #2: The database is accessed to school Assumption #3: Student emails are entered correctly Assumption #4: Database is entered correctly		

UC ID and Name:	SelectAll = 12542		
Created By:	Kaden Carr	Date Created:	3/15/2022
Primary Actor:	Operator	Secondary Actors:	None
Trigger:	Operator clicks “Select All” button.		
Description:	The select all button selects all students who are in constraints of program.		
Preconditions:	1 Program qualifications specified. 2 Students not already selected.		
Postconditions:	Students are not selected already.		
Normal Flow:	12542. 0. Operator hits the button labeled “Select All”. 12542. 1. All selected students are contacted.		

	12543. 2. Dialog box appears that states “All students selected.”
Alternative Flows:	No alternative flows
Exceptions:	12542. E1. No students can be selected/ database not entered. 12542. E2. Constraints were not made.
Priority:	High
Frequency of Use:	Once per launch
Business Rules:	Select students who fall into FGCU Complete constraints.
Other Information:	Quality Attribute #1: Make sure to not select anyone outside of constraints. Quality Attribute #2: Select students who are in constraints.
Assumptions:	Assumption #1: The user has access to a faculty email. Assumption #2: The database is accessed to school. Assumption #3: Student emails are entered correctly. Assumption #4: Database is entered correctly

UC ID and Name:	SelectStudent = 12544		
Created By:	Kaden Carr	Date Created:	3/15/2022
Primary Actor:	Operator	Secondary Actors:	None
Trigger:	Operator clicks “Select Student” button with UIN number		
Description:	The “Select Student” button will individually select a student		
Preconditions:	A valid UIN number of the student is entered		
Postconditions:	The student selected will not be listed in the system		
Normal Flow:	12544. 0. Operator hits the button labeled select student with UIN entered in textbox 12544. 1. Textbox inside program clears 12544. 2. Dialog box returns “[student name] selected.”		
Alternative Flows:	No alternative flows		
Exceptions:	12544. E1. The UIN does not match a student/ Dialogue appears that states “UIN number does not match student in database”. 12544. E2. The operator selects an already selected student/ Dialogue appears that states “Student already selected”		
Priority:	High		
Frequency of Use:	Once per launch		
Business Rules:	1 Only Florida Gulf Coast University students can be selected		
Other Information:	Quality Attribute #1: Must be easily selectable		
Assumptions:	Assumption #1: The operator has access to a faculty email. Assumption #2: The database is accessed to school. Assumption #3: Student emails are entered correctly. Assumption #4: Database is correctly connected.		

UC ID and Name:	DeselectStudent = 12541		
Created By:	Kaden Carr	Date Created:	3/15/2022
Primary Actor:	Operator	Secondary Actors:	None
Trigger:	Operator clicks “Deselect Student” button with UIN number		
Description:	The “Deselect Student” button will individually select a student		
Preconditions:	A valid UIN number of the student is entered		
Postconditions:	The student selected will not be delisted in the system		
Normal Flow:	12544. 0. Operator hits the button labeled deselect student with UIN entered in textbox while student was selected 12544. 1. Textbox inside program clears 12544. 2. Dialog box returns “[student name] deselected.”		
Alternative Flows:	No alternative flows		
Exceptions:	12544. E1. The UIN does not match a student/ Dialogue appears that states “UIN number does not match student selected in database”. 12544. E2. The operator tries to deselect a non-selected student/ Dialogue appears that states “Student currently not selected”		
Priority:	High		
Frequency of Use:	Occasions where a student is selected who is not supposed to receive the email		
Business Rules:	1 Only Florida Gulf Coast University students can be selected		
Other Information:	Quality Attribute #1: Must be easily deselected		
Assumptions:	Assumption #1: The operator has access to a faculty email. Assumption #2: The database is accessed to school. Assumption #3: Student emails are entered correctly. Assumption #4: Database is correctly connected.		

UC ID and Name:	SendEmails = 12540		
Created By:	Kaden Carr	Date Created:	3/15/2022
Primary Actor:	Operator	Secondary Actors:	None
Trigger:	Operator clicks “Send Emails” button with students selected		
Description:	The “Send Emails” button will send emails out to all students who qualify for the constraints or have been selected by the school from the faculty email entered in the system.		
Preconditions:	1 Students have been selected who have existing emails 2 The correct database was entered 3 The faculty member was entered by the operator		
Postconditions:	The students who were selected will receive an email		
Normal Flow:	12540. 0. Operator hits the button labeled “Send Emails”. 12540. 1. Emails are sent out to the students selected 12540. 2. Dialog box returns “Email sent to selected students.”		

Alternative Flows:	No alternative flows
Exceptions:	12544. E1. No students were selected/Dialog appears that states “No students were selected. Select a student and try again.” 12544. E2. A faculty member email is not entered/ Dialog appears that states “Faculty member email not in use. Enter a faculty email.”
Priority:	High/Essential
Frequency of Use:	Must be used at least once per operation.
Business Rules:	1 Only Florida Gulf Coast University students can be selected 2 Must send email through faculty email account
Other Information:	Quality Attribute #1: Must send all emails out to every student in list.
Assumptions:	Assumption #1: The operator has access to a faculty email. Assumption #2: The database is accessed to school. Assumption #3: Student emails are entered correctly. Assumption #4: Database is correctly connected.

UC ID and Name:	OpenEmail = 12545		
Created By:	Kaden Carr	Date Created:	3/15/2022
Primary Actor:	Student	Secondary Actors:	None
Trigger:	The student opens the email		
Description:	When the student opens the email, the program has successfully done its job		
Preconditions:	1 Sender email entered. 2 Email recipient selected. 3 Letter is initialized 4 Email is sent		
Postconditions:	The email recipient receives the letter from the sender email		
Normal Flow:	12545. 0. Program works correctly 12545. 1. Email can now be opened		
Alternative Flows:	No alternative flows		
Exceptions:	No exceptions		
Priority:	High		
Frequency of Use:	After program operation is successful		
Business Rules:	1-Send to student emails 2-Use a faculty email		
Other Information:	Quality Attribute #1: Email is sent successfully		
Assumptions:	Assumption #1: The student receives the email		

Set of Requirements:

BAN-8	REQ-1. The system shall have have emailing capability through Microsoft Outlook.	⬆	TO DO ▾	👤
BAN-9	REQ-2. The operator shall be able to compose an email through a large textbox with a ...	⬆	TO DO ▾	👤
BAN-19	REQ-3. The program shall have a "Select All" button which selects students in constrai...	⬆	TO DO ▾	👤
BAN-20	REQ-4. The program shall be created using Python	⬆	TO DO ▾	👤
BAN-21	REQ-5. The program shall include a "Select" button which selects a single student wit...	⬆	TO DO ▾	👤
BAN-22	REQ-6. The program shall include a "Deselect" button which deselects a single studen...	⬆	TO DO ▾	👤
BAN-24	REQ-7. The program shall include a "Send Email" button which sends an email to all s...	⬆	TO DO ▾	👤
BAN-25	REQ-8. The program shall only allow the operator to use Florida Gulf Coast University...	⬇	TO DO ▾	👤
BAN-26	REQ-9. The program shall be robust to all inputs possible from users without any cras...	⬆	TO DO ▾	👤
BAN-29	REQ-10. Students from the email list shall receive an email as an output of the progra...	⬆	TO DO ▾	👤
BAN-31	REQ-11. Operators shall be able to change the email the program sends emails from	⬇	TO DO ▾	👤
BAN-39	REQ-12. The program shall have a "Sign In" button which will log the user in to outlo...	⬆	TO DO ▾	👤
BAN-40	REQ-13. The program shall have a "Save" button which will commit the "Create Email...	⬆	TO DO ▾	👤
BAN-41	REQ- 14. The program shall have an "Action" button which will send content from the...	⬆	TO DO ▾	👤
BAN-42	REQ-15. The program shall have a "Confirm" button which takes the list of students i...	⬆	TO DO ▾	👤
BAN-43	REQ-16. The program shall have a "Remove Student" button which will remove stude...	⬆	TO DO ▾	👤
BAN-44	REQ-17. The program shall have a "Remove All" button which will clear the list label...	⬆	TO DO ▾	👤
BAN-45	REQ-18. The program shall output a dialog box labeled "Connection Lost" when conn...	⬆	TO DO ▾	👤
BAN-46	REQ-19. The program shall include a "Deselect All" button which deselects every stud...	⬆	TO DO ▾	👤
BAN-47	REQ-20. The program shall include an "Exit" button which safely exits the program an...	⬆	TO DO ▾	👤

4. Verification

Key	Summary	verification approach
BAN-47	REQ-20. The program shall include an "Exit" button which safely exits the program and logs out of the system.	Inspection

<u>BAN-46</u>	<u>REQ-19. The program shall include a "Deselect All" button which deselects every student from email list.</u>	Test
<u>BAN-45</u>	<u>REQ-18. The program shall output a dialog box labeled "Connection Lost" when connection to internet is lost followed by logging out of the system.</u>	Test
<u>BAN-44</u>	<u>REQ-17. The program shall have a "Remove All" button which will clear the list labeled "Selected Students".</u>	Test
<u>BAN-43</u>	<u>REQ-16. The program shall have a "Remove Student" button which will remove student from list.</u>	Test
<u>BAN-42</u>	<u>REQ-15. The program shall have a "Confirm" button which takes the list of students in "select Students" and moves them to "Selected Students"</u>	Test
<u>BAN-41</u>	<u>REQ- 14. The program shall have an "Action" button which will send content from the "Send Email" button to the selected students' emails.</u>	Test
<u>BAN-40</u>	<u>REQ-13. The program shall have a "Save" button which will commit the "Create Email" textbox to the "Send Email" textbox.</u>	Test
<u>BAN-39</u>	<u>REQ-12. The program shall have a "Sign In" button which will log the user in to outlook.</u>	Test
<u>BAN-31</u>	<u>REQ-11. Operators shall be able to change the email the program sends emails from</u>	Test
<u>BAN-29</u>	<u>REQ-10. Students from the email list shall receive an email as an output of the program.</u>	Demonstration
<u>BAN-26</u>	<u>REQ-9, The program shall be robust to all inputs possible from users without any crashes.</u>	Test
<u>BAN-25</u>	<u>REQ-8. The program shall only allow the operator to use Florida Gulf Coast University emails</u>	Demonstration
<u>BAN-24</u>	<u>REQ-7. The program shall include a "Send Email" button which sends an email to all students within the email list.</u>	Test
<u>BAN-22</u>	<u>REQ-6. The program shall include a "Deselect" button which deselects a single student from the email list.</u>	Test
<u>BAN-21</u>	<u>REQ-5. The program shall include a "Select" button which selects a single student without any constraints to add to an email list.</u>	Test
<u>BAN-20</u>	<u>REQ-4. The program shall be created using Python</u>	Analysis

<u>BAN-19</u>	<u>REQ-3. The program shall have a "Select All" button which selects students in constraints of FGCU Complete program to select emails from these students.</u>	Test
<u>BAN-9</u>	<u>REQ-2. The operator shall be able to compose an email through a large textbox with a save button.</u>	Demonstration
<u>BAN-8</u>	<u>REQ-1. The system shall have have emailing capability through Microsoft Outlook.</u>	Inspection

5. Appendices

5.1 Assumptions and Dependencies

- FGCU has a database containing GPA, Course Hours, and Credits, as well as classes.
- The faculty members have a degree of inaccuracy in their work which can be improved.
- Turnout could be increased have all the students who qualify fit into the email list.

5.2 Acronyms and Abbreviations

FGCU- Florida Gulf Coast University

GPA- Grade Point Average