

Software Requirements Specification (SRS)

Software Requirements

Specification

for

UPdate

Version 1.0

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1. Introduction

1.1 Purpose

The purpose of UPdate is to provide an alternative way for students to update their contact information so that FGCU faculty/staff can get in contact when needed.

1.2 Scope

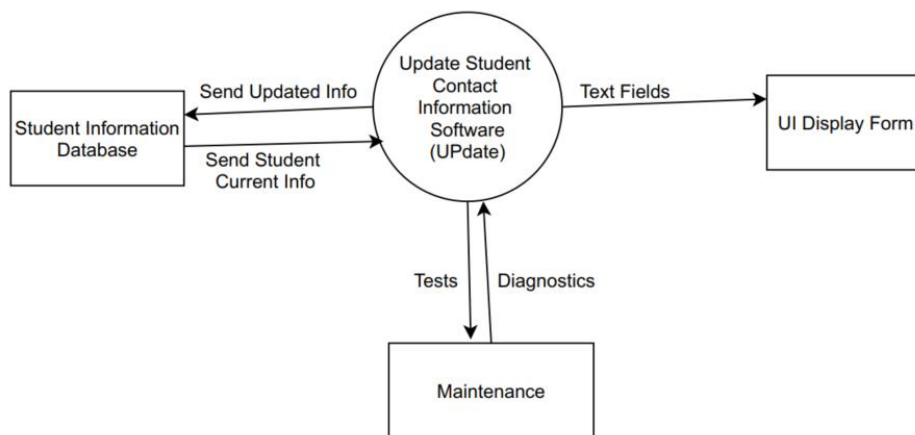
The hypothetical system to be produced is called UPdate. Its goal is to have all students update or confirm their contact information as soon as possible. This will allow FGCU staff to get in contact with students about classes, career opportunities, etc. Another goal of UPdate is to have all information stored securely. This goal can be measured by the number of students who either accept or deny updating their information vs the number of active students with canvas accounts.

What UPdate will not do is send student information directly to FGCU professors/staff or collect student SSN or banking information. It will only provide a means of collecting updated student information and sending it to FGCU Information Systems.

1.3 Product overview













1.3.1 Product perspective









Context Diagram:



Constraints (hypothetical)

Key	Summary	T	Created	Updated	Due	Assignee	Reporter	P
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SS-45	Update only allows students to update information		02/Apr/21 9:09 PM	02/Apr/21 9:09 PM		Unassigned	You'll Remember The Name	
SS-44	Update shall maintain the data formats it receives, sending updated information in that same form		02/Apr/21 9:09 PM	02/Apr/21 9:09 PM		Unassigned	You'll Remember The Name	
SS-43	Update software must be able to run on all browsers		02/Apr/21 9:08 PM	02/Apr/21 9:08 PM		Unassigned	You'll Remember The Name	
SS-42	Updates database must be built on SQL		02/Apr/21 9:07 PM	02/Apr/21 9:07 PM		Unassigned	You'll Remember The Name	
SS-41	Update will follow the current PEP 8 coding standards		02/Apr/21 9:07 PM	02/Apr/21 9:07 PM		Unassigned	You'll Remember The Name	
SS-29	Update will follow the existing interface conventions of student canvas profiles		05/Mar/21 7:56 PM	Yesterday 3:35 PM		Unassigned	You'll Remember The Name	

SS-28	Students can only update name, address, number, and email addresses		05/Mar/21 7:54 PM	05/Mar/21 8:04 PM		Unassigned	You'll Remember The Name	
SS-27	Students will have 20 minutes to update information before the page refreshes		05/Mar/21 7:53 PM	05/Mar/21 8:03 PM		Unassigned	You'll Remember The Name	
SS-26	All textual data collected by UPdate will be stored in CSV format		05/Mar/21 7:51 PM	05/Mar/21 7:51 PM		Unassigned	You'll Remember The Name	
SS-25	Students data will be stored temporarily in a database by UPdate		05/Mar/21 7:50 PM	Yesterday 3:35 PM		Unassigned	You'll Remember The Name	

[10 issues](#)

1.3.2 Product functions







- Collect student Addresses, Numbers, email addresses
- Temporarily store that collected information in its database
- Send that collected information to FGCU's Information Systems



1.3.3 User characteristics

- Communicative: Students, professors, and staff must be able to communicate what they do and don't like about the system implemented.

- Expertise: System managers and FGCU Data Stewards must have the knowledge needed to implement incoming data while making sure it is safe.
- Decision Making: System managers must be able to make final decisions on the implementation of the system based on user response, cost, and time.
- Accountable: Students, professors, and staff must be able to provide feedback on the system before and during implementation.
- Team Player: IT Data Stewards must be able to work together to make sure work is distributed evenly

1.3.4 Limitations

Key	Summary	T	Created	Updated	Due	Assignee	Reporter	P
SS-28	Students can only update name, address, number, and email addresses		05/Mar/21 7:54 PM	05/Mar/21 8:04 PM		Unassigned	You'll Remember The Name	
SS-27	Students will have 20 minutes to update information before the page refreshes		05/Mar/21 7:53 PM	05/Mar/21 8:03 PM		Unassigned	You'll Remember The Name	
SS-17	If a student does not want to update information, the system shall stop prompting the student within one day.		05/Mar/21 7:06 PM	Yesterday 6:14 PM		Unassigned	You'll Remember The Name	

SS-15	When a student updates their contact information, the system shall store that data for a maximum of 24 hours.		05/Mar/21 7:04 PM	Yesterday 6:11 PM		Unassigned	You'll Remember The Name	
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[4 issues](#)

1.4 Definitions

- UIN: University Identification Number
- AA: Associate Degree
- BA: Bachelor's of Arts
- BS: Bachelor's of Science

2. References

<https://www.riohondo.edu/canvas-orientation/what-is-canvas/#:~:text=Canvas is a course management,colleges all over the world.&text=Canvas provides the tools to,in a variety of ways.>

<https://www.fgcu.edu/admissionsandaaid/financialaid/graduate/formsandresources/faqs#WhatkindofinformationaboutmyfinancialaidcanIfindonGulfline>

<https://www.fgcu.edu/its/staff/banner.aspx>











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FGCU Complete main web site <https://www.fgcu.edu/complete/>




3. Requirements

3.1 Functions

Key	Summary	Description	Linked Issues	P	Labels
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<u>SS-40</u>	<u>Update coders shall regularly make comments in code to make the code easier to interpret.</u>	Source: Update CEO			Database, Usability, nonfunctional
<u>SS-39</u>	<u>Update shall follow PEP 8 styling guide</u>	Source: Update CEO			functional
<u>SS-38</u>	<u>Update shall put new software through at least two stress testing before implementation.</u>	Source: Update Business Rule			functional
<u>SS-37</u>	<u>Update shall create and maintain user documentation for both students and employees</u>	Source: Update CEO(Me), Update hiring manager			Usability, functional
<u>SS-36</u>	<u>Update shall use the exact data types of the information received from FGCU's database</u>	Source: Update DataStewards, FGCU Data Stewards			Database, functional
<u>SS-35</u>	<u>Update's price of maintenance shall remain less than the amount it produces in profit</u>	Source: Updates CEO(Me)			functional
<u>SS-34</u>	<u>Update shall have required maintenance at the beginning of every month</u>	Source: Update Data Stewards			functional
<u>SS-33</u>	<u>Update database shall not connect to FGCU's staff information systems</u>	Source: FGCU Data Stewards			Database, functional
<u>SS-32</u>	<u>Update database shall not update FGCU staff or professors information</u>	Source: FGCU Datastewards			functional
<u>SS-31</u>	<u>Update database shall extract information from FGCU's Information Systems within a day</u>	Source: FGCU Data Stewards			functional

<u>SS-30</u>	<u>When updating information, students shall easily view texts due to high contrast text vs background color</u>	Source: Users(students)			Interface, functional
<u>SS-24</u>	<u>After a student updates their information, UPdate shall send the updated information to FGCU Information Systems in a CSV format.</u>				nonfunctional
<u>SS-23</u>	<u>If a student updates their information, UPdate shall temporarily store that data in a database if traffic is heavy.</u>				nonfunctional
<u>SS-22</u>	<u>During finals and registration week, UPdate shall be available for students to update information.</u>		<u>SS-13</u>		functional
<u>SS-21</u>	<u>When UPdate collects the updated information, it shall send ALL information that was updated within 24 hours.</u>				functional
<u>SS-20</u>	<u>When the UPdate receives updated contact information, UPdate shall not share that data with 3rd parties besides FGCU's Information Systems ever</u>				nonfunctional
<u>SS-19</u>	<u>When a student decides to update their information, the system shall not ask for SSN's or bank information</u>				nonfunctional
<u>SS-18</u>	<u>When a professor asks for student information, UPdate shall tell the professor that information can only be taken from FGCU's Information Systems.</u>				functional

SS-17	If a student does not want to update information, the system shall stop prompting the student within one day.				functional, limitation
SS-16	After UPdate collects the updating information, UPdate shall send that data to FGCU's Information Systems Database.				functional
SS-15	When a student updates their contact information, the system shall store that data for a maximum of 24 hours.		SS-11		functional, limitation

[21 issues](#)

Page BreakUse Case List

<i>Primary Actor</i>	<i>Use Cases</i>
FGCU student	UC-1
UPdate Database Worker	UC-2
FGCU Database Worker	UC-3
FGCU Professor/Staff	UC-4

UC ID and Name:	UC-1 Update Contact Information
Description:	A student is given the decision to update their contact information if needed. The student will access the UPdate system through canvas.
Preconditions:	<ol style="list-style-type: none"> 1. The student is logged into Canvas 2. The student has/wants to update contact information.
Postconditions:	<ol style="list-style-type: none"> 1. Student updated information is temporarily stored in UPdate database. 2. UPdate database sends that data to FGCU's Information System

Normal Flow:	<ol style="list-style-type: none"> 1. The student chooses to update contact information in canvas. 2. Student inputs their information into the differently labeled text boxes. 3. The student decides whether they want that information to display on their canvas profile. 4. Update database sends the student's information to FGCU's Information System.
Alternative Flows:	<ol style="list-style-type: none"> 1. Student decides to opt-out of updating information 2. Student is no longer bothered about updating information

UC ID and Name:	UC-2 Send updated information
Description:	Update database worker sends the updated contact information to FGCU's Information System.
Preconditions:	<ol style="list-style-type: none"> 1. Student updated contact information
Postconditions:	<ol style="list-style-type: none"> 1. FGCU's Information system updates the office of records.
Normal Flow:	<ol style="list-style-type: none"> 1. Update database sense updated student data to FGCU's IS. 2. FGCU Information System check data is safe and doesn't contain any SQL injection, viruses, malware, etc.
Alternative Flows:	<ol style="list-style-type: none"> 1. UPdate holds updating information for a maximum of 24 hours due to a high volume of students updating information.
UC ID and Name:	UC-3 Update Official Student Records
Description:	FGCU data stewards use updated data to change official records.
Preconditions:	<ol style="list-style-type: none"> 1. FGCU Information System Data Stewards have received updated student contact info.
Postconditions:	<ol style="list-style-type: none"> 1. Student records are correct and accurate

Normal Flow:	<ol style="list-style-type: none"> 1. FGCU data stewards check the information is free of SQL injection, malware, viruses. 2. Data stewards input the information into the database. 3. Updated information becomes the official student record.
Alternative Flows:	<ol style="list-style-type: none"> 1. Information sent does include SQL injection, malware, viruses. 2. All information from that batch will be denied access to FGCU information system. 3. Contact the correct party based on what was sent.
UC ID and Name:	UC- 4 Retrieve Student Information
Description:	FGCU Professors/Staff finally have access to correct student information in case they need to get in contact with them for things related to class, jobs, etc.
Preconditions:	<ol style="list-style-type: none"> 1. Student updates information 2. UPdate Database Worker sent the updated information 3. FGCU Database worker updated Official Student Records
Postconditions:	<ol style="list-style-type: none"> 1. Professors/Staff can contact the information of students they need to get in contact with.
Normal Flow:	<ol style="list-style-type: none"> 1. Professors/Faculty look at the Office of Records for student contact information. 2. Students are contacted
Alternative Flows:	<ol style="list-style-type: none"> 1. Contact information hasn't been updated 2. Student potentially loses an opportunity.

Use Case Diagram:



4. Verification

Key	Summary	verification approach
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<u>SS-40</u>	<u>UPdate coders shall regularly make comments in code to make the code easier to interpret.</u>	Inspection
<u>SS-39</u>	<u>Update shall follow PEP 8 styling guide</u>	Inspection
<u>SS-38</u>	<u>UPdate shall put new software through at least two stress testing before implementation.</u>	Test
<u>SS-37</u>	<u>UPdate shall create and maintain user documentation for both students and employees</u>	Inspection
<u>SS-36</u>	<u>UPdate shall use the exact data types of the information received from FGCU's database</u>	Inspection
<u>SS-35</u>	<u>UPdate's price of maintenance shall remain less than the amount it produces in profit</u>	Analysis
<u>SS-34</u>	<u>UPdate shall have required maintenance at the beginning of every month</u>	Inspection
<u>SS-33</u>	<u>UPdate database shall not connect to FGCU's staff information systems</u>	Inspection
<u>SS-32</u>	<u>UPdate database shall not update FGCU staff or professors information</u>	Inspection
<u>SS-31</u>	<u>UPdate database shall extract information from FGCU's Information Systems within a day</u>	Analysis
<u>SS-30</u>	<u>When updating information, students shall easily view texts due to high contrast text vs background color</u>	Inspection
<u>SS-24</u>	<u>After a student updates their information, UPdate shall send the updated information to FGCU Information Systems in a CSV format.</u>	Test
<u>SS-23</u>	<u>If a student updates their information, UPdate shall temporarily store that data in a database if traffic is heavy.</u>	Demonstration
<u>SS-22</u>	<u>During finals and registration week, UPdate shall be available for students to update information.</u>	Inspection
<u>SS-21</u>	<u>When UPdate collects the updated information, it shall send ALL information that was updated within 24 hours.</u>	Analysis
<u>SS-20</u>	<u>When the UPdate receives updated contact information, UPdate shall not share that data with 3rd parties besides FGCU's Information Systems ever</u>	Demonstration
<u>SS-19</u>	<u>When a student decides to update their information, the system shall not ask for SSN's or bank information</u>	Test

<u>SS-18</u>	<u>When a professor asks for student information, UPdate shall tell the professor that information can only be taken from FGCU's Information Systems.</u>	Inspection
<u>SS-17</u>	<u>If a student does not want to update information, the system shall stop prompting the student within one day.</u>	Demonstration
<u>SS-16</u>	<u>After UPdate collects the updating information, UPdate shall send that data to FGCU's Information Systems Database.</u>	Inspection
<u>SS-15</u>	<u>When a student updates their contact information, the system shall store that data for a maximum of 24 hours.</u>	Analysis

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5. Appendices

5.1 Assumptions and dependencies

- *FGCU staff know how to get a hold of student contact info*
- *Students would like the university to have updated contact info*
- *All students will come across registering for classes, spoi surveys, or attendance verification*
- FGCU is willing to allow student information to be updated through other forms besides formal documentation
- Canvas is allowed to interact with FGCU's student information systems

5.2 Acronyms and abbreviations

- IT: Information Technology
- DBS: Database system