*Florida International University*

*School of Computing and Information Sciences*

CIS 4911 - Senior Capstone Project

Software Engineering Focus

Feature Document

User Story #1026

Fixing Issues with Existing Features and Crashing

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# **User Story – Fixing Issues with Existing Features & Crashing**

## **Description**

As a Developer, I want to make sure that there are no bugs in the existing features on the website, so that the server doesn’t crash and Users can use the website smoothly.

### **Acceptance Criteria:**

1. I have applied for a project as a student, I have received an email regarding my submission, but I didn't receive any email for student confirmation. Masood and I should receive an email regardless of our user type.
2. "Accept Mohsen's Profile Changes?" should automatically be refreshed after PI's answer
3. Bug here – "Accept Mohsen's Profile Changes?" Nothing happened and drop down menu doesn't work. This should work.
4. "Review Student Applications for Projects" when I click yes or no, it has to show a message or a small change, so I can realize when I click on yes, it works
5. Pi should be able to see all links including student application form under resrotpective students tab
6. "Review User" : after PI accept the student in this page, it should shows a successful message to pi.
7. I got an email for "Faculty Has Proposed New Project: Redfivefour" , but there is not a link for it in the email
8. To do's has a bug, I clicked on my to do's on time, and when I refreshed my page, all disapeared
9. I just signed up as a faculty and i check my to do's and it's showing me some messgaes for vladan and daniel

## **Use Case**

**Use Case ID:** (VIP-1026)

**Details:** There have been issues with multiple bugs existing in some of the features were developing for VIP and the server crashing. This use case details how all of these problems were fixed.

**Actor:** Developer

**Pre-conditions:**

1. Developer has executed the bug-fixed version of VIP, using the “forever” command.
2. Developer has opened his/her web browser to test.

**Description:**

1. Use case begins when the Developer navigates to http://vip.fiu.edu.
2. Dev checks that the “applied for a project” function is now sending emails properly.
3. Dev checks that the “Accept Users profile changes” page now refreshes after the PI gives an answer.
4. Dev checks that the "Review Student Applications for Projects" page now gives a response when a Pi answers “yes” or “no”
5. Dev checks that a Pi is now able to see all links including student application form under retrospective students tab.
6. Dev checks that the “Review User” page now gives a response message when a user is accepted, instead of the page just remaining static.
7. Dev checks that now when a faculty submits a new project, a link to that project is now included in the email that is dispatched.
8. Dev checks that the todo feature is now working properly.
9. Dev browses the website numerous times throughout the day for several weeks and checks the server logs via SSH to see that the server is no longer crashing.

**Post-conditions:**

1. Users are able to use the website bug-free and no longer experience downtime delays.

**Alternative Courses of Action:**

N/A

**Exceptions:**

N/A

**Related Uses Case:**

N/A

**Decision Support:**

**Frequency:** Low. Estimated average of one addition per application execution.

**Criticality:** High. Needed for the site to function correctly.

**Risk:** Low.

**Constraints:**

1. **Usability:** 
   1. No training time required.
   2. User guide should provide more in-depth information.
2. **Reliability:** 
   1. Mean time to Failure – 1% failures for every twenty four hours of operation is acceptable.
   2. Availability – Downtime for server can be for an arbitrary amount of time, if the server isn’t executed properly.
3. **Performance:** 
   1. Server should have 99% uptime when it’s time for FIU to begin using the product.
4. **Supportability:**
   1. All modern web browsers should be supported.

**Modification History:**

**Owner:** Vladan Lalovic

**Initiation date:** 6/14/2016

**Date last modified:** 7/3/2016

**Use Case Diagram**

N/A

**Sequence Diagram**

N/A

**Class Diagram**

N/A

**Unit & Integration Tests:**

**Test Case 1 (Sunny Day) – No Server Downtime**

**ID: VIP-SD-1026-01**

**Purpose**

* Make sure that the VIP server remains functional and online.

**Precondition**

* Developer has uploaded and configured the the VIP files ahead of time on the server.

**Input**

* Developer runs the server using the “forever start” command.

**Expected Result**

* The VIP server remains online longer and restarts itself if it ever encounters an unhandled exception that causes it to crash.

**Actual Result**

* The VIP server remained online for 99% of the time and recovered itself in situations that caused the server to crash.

**Test Case 2 (Rainy Day) – Periodic Server Downtime**

**ID: VIP-SD-1026-02**

**Purpose**

* Check to see if the VIP server remains functional and online when it isn’t executed using the “forever start” command. In this test case, we will run in “screen” console window in putty.

**Precondition**

* Developer has uploaded and configured the VIP files ahead of time on the server.
* Developer has installed the “screen” UNIX command and understands how it works.

**Input**

* Developer runs the server using the “node server.js” command inside of “screen”
* Developer detaches from “screen” using the keyboard input “CTL + x”.

**Expected Result**

* The VIP server remains online and doesn’t crash.

**Actual Result**

* The VIP server crashed periodically, which resulted in downtime, due to exceptions not being caught and the server not restarting these exceptions.

## **User Guide – Running the VIP-Dev Server**

**Step 1:** Developer runs the VIP server with “forever start” to ensure maximum uptime and stability.

