

Testing Documentation

The testing process for the Study Buddy system performs validation/acceptance testing in the form of alpha testing. This test's scope covers black box /input output testing, and therefore aims to check from an end user's perspective how the system navigation process will be in terms of system time response, as well as whether functional and behavioral requirements of the system have been satisfied. The acceptance testing timeline process was initiated on 11/28 and ends on 12/7, occurring over a 10 day period. The test cases were set up so as to be inclusive and exhaustive of all possibilities. Testing occurred through several stages in the implementation process with the different published versions of the website. The software developers in the team Nadja and Aisha, as well as the team members setting up test cases, Hessa and Dania, performed the testing of the success and alternate cases. The testing team focused on validation testing to perform black box/ input output testing, whilst the web developers performed white box testing through testing the functionality of the system using a bottom up approach and focusing on low level code analysis whilst building the website.

The four use cases to be tested are registering and entering basic personal information, logging in, entering studying preferences, and finding a compatible study buddy. In order for our first test case for our first use case, registration and entering basic personal information to pass a student must be able to register by entering their NetID, university email, first name, last name, gender, year, major and entering a chosen password and confirming that password. If the student does not enter matching passwords, the student is prompted to try again. After registration, the student will successfully be redirected to the Multi-Factor Authentication (MFA) page, where the student is prompted to authenticate themselves by sending a push notification to their mobile device. Our system assumes that a student is able to bypass MFA. This test case fails if a student is unable to register using valid credentials and the data is not saved into the database.

The second test case for our second use case, logging in, passes if a student successfully logs into the Study Buddy website by entering their correct email and password set during registration and passing Multi-Factor (MFA) authentication. A student is only able to login after registering, so this test case passes only if the registration test case is successful. This test case fails if a student is unable to login to the website using their registered credentials and cannot bypass the MFA authentication.

The third test case, enter studying preferences, describes the process of the student entering their study partner preferences (academic year, major, gender and the course(s) they are going to study during the session). This test case passes if the studying preferences are stored correctly into the database under each specific student. The test

case fails if the studying preferences are not saved and updated into the database each time a student enters new preferences.

The fourth test case, find compatible study buddies, involves the system searching for study buddies in the system whose gender, major, and academic year match the student's selection of study buddy preferences. This test case passes if the suggested matches of 100% match and almost 100% match are accurate according to information stored in the database that each student has entered. This use case also should avoid suggesting the main student who is searching for a match as a match for themselves and repeating suggested matches. The test fails if the system fails to suggest study buddies despite there being compatible options in the database, or if it inaccurately returns matches that are not compatible.

As the system has not been released yet, beta testing will follow as soon as it is released. We will have a group of individuals (sufficient number for the system to work: ~ 50 users) who've agreed to be part of the beta testing period of the Study Buddy system. These individuals will be provided with a feedback form that includes specific questions about user experience and requirement fulfillment, as well as an open ended section to elaborate on any further points the curators of the form have not taken into account. After trialing the system for about 2-3 weeks, they will be asked to fill out the form. Incentives for the group of users is yet to be decided by the team. The team will initially try an incentive free approach by recruiting interested users on NYUAD's main facebook student group. If we do not get enough users for beta testing through this method, we will consider an incentivized approach.