Value Student Living QA Test Strategy

**Scope and Overview**

Value Student Living will be a developed web application offering resources needed for anyone looking to lease a home/room within the Clifton area. This application is targeting the demographic of students of the University of Cincinnati, but anyone looking for space in this area of Cincinnati may utilize it. The goal of QA testing with this application is to ensure that users can view available spaces and interact with the full functionality of the site.

**Test Approach**

There are three core aspects of QA that we are looking to target…

1. Defining Quality

* Developing certain aspects that will institute valuable expectations and standards for our application.
* Areas of the application that will meet these standards include user inputs, processes, and outcomes.
* Defining quality means meeting standards of performance and ensuring that this performance is reliable and valuable.

1. Improving Quality

* Utilizing problem solving methods and re-engineering between the level of quality that exists currently and the expected standards we want to meet with this application to ensure the application is functioning as intended.
* Identify what we want to improve and analyze the application as it is to search for the area that will require improvement.
* Testing these changes to verify that they truly do help the application is a big part of QA testing.

1. Measuring Quality

* Measuring quality is tied to defining quality because we need to understand what our standards are in order to measure how the application is functioning.
* Some means of measuring quality could be user surveys and self-assessments. This is the stage in which we are collecting data and analyzing this data in order to figure out areas for improvement.

**Test Levels**

1. Unit Testing

* This type of testing will be done at the beginning of the development cycle. This will save time and effort as recognizing errors in the beginning will set us up for a more efficient process in the future.
* This testing will focus on general functionality of the application and ensuring that pieces are working as they should.

1. Integration Testing

* This testing involves seeing if combinations of modules work successfully together. We want to see if any pieces of the application are not working well together.

1. System Testing

* This stage of testing allows for us to test all components of the application to see if all parts of the application are working together as intended and set by the standards we have defined.

1. Acceptance Testing

* This level of software testing will tell us whether the application is able to be deployed and able to be used by the public. We want to ensure that the end-user experience meets all of the requirements and standards in this stage.

**Roles and Responsibilities**

*Ethan Diedrich – QA Lead*

Will be responsible for testing the application through each stage of QA.

*Drew Crabtree – Project Manager*

The project manager of this application. All testing reports and feedback will be relayed to Drew and then reported back to the development team.

**Testing Tools**

This section will describe the tools that will be used throughout the development process to test the software and provide all the requirements we need to improve our software (These are subject to change throughout the development process).

**QA Industry Standards to Live By**

One of the most important concepts in QA is that standards are the bottom line of any industry. Standardization allows for us to minimalize errors that may create a broken product that we are putting out for public use.

We also want to address the convenience and lives of our consumers. Is the application doing what we have intended it to do for consumers? The standard we want to follow is that the application we are creating is benefitting the consumer and making their lives simpler.

**Test Deliverables**

With quality assurance, we must report on our finding and document everything for the sake of the project’s efficiency and the for the sake of the development team. These are some of the deliverables that will be of focus once testing is begun…

1. Test Strategy

* This is the document we are currently reading. This document is important as it sets the standards and explains every aspect of the QA process with Value Student Living that we anticipate.

1. Test Cases

* With test cases, we want to put together documentation about what we are testing and what the expected result of this test is going to be. This can include creating a use case, where we describe a user scenario and the expected goal, and then upon testing this functionality, we can document what the application does.

1. Defect Reports

* This document will provide the details of the defects that have been found in the test cases which can include the nature of these defects and priorities that need to be worked on as soon as possible. This document will be the most important to the development team throughout the duration of this project.

1. Test Results Report

* Depending on the QA testing schedule, this documentation will be important for the entire group as we will have a better understanding of how close our project is to completion. This document will include software quality analysis, the number of defects discovered during testing, the severity level of the defect, etc.

**QA Risks and Mitigation**

With any IT project, there are risks. QA is a factor in that risk and requires attention during the early stages of the project. Some examples of risk in quality assurance includes…

* Poor communication with team members
* Constant change of standards and requirements
* Wrongful prioritization

When it comes to mitigating these risks, the most important action we can take is constant monitoring and correcting the hiccups when they arise. We want to make sure that communication is constant by having at least one section of team meetings be dedicated to quality assurance. The next step is to set standards and requirements of the application at inception to prevent any problems meeting deadlines. We will also need to be astute in categorizing defects and ensuring that the development team understands which bugs need corrected more than others. The inability to do this could set the project back and leave consumers dissatisfied.