# Week 10: Instructor Notes

## Overview

This week students will be working on creating bug reports.

## Objectives

By the end of the week, each student will be able to:

* Differentiate Functional and Non-Functional Testing criteria from Requirements, Design, and Implementation
* Present a customer report
* Create a Bug Report form
* Complete bug reports for a product

## Before the Week Begins (Prepare)

### Preparation:

* Students will be working on creating a presentation for the customer about features that have been tested—identifying current issues and writing bug reports based on reports they made.

### Partnership/Group work:

* Partnerships are also creating Bug Report forms.

## During the Week (Teach)

### Labs:

* Making sure that the customer gets the right product is just as important as the product works correctly is all part of Testing.

## Looking Ahead

To be aware of

Next week's announcements:

* Please create and post your Announcement for W11 by Friday of this week, no later than Monday.

# Prepare

## Overview

This week is a follow-up to Lifecycles, but dealing with the Requirements, Design, and Implementation phases, focusing on Functional and Non-functional attributes of Testing characteristics in Verifying and Validating Requirements.

## Objectives

By the end of the week, each student will be able to:

* Differentiate Functional and Non-Functional Testing criteria from Requirements, Design, and Implementation
* Build a System Acceptance Test Plan

## Preparation Material

To be prepared for this module's activities, please read the following and be prepared to start or complete activities for Teach One Another and Prove assignments.

### Reading

* [See Reading.](https://webmailbyui-my.sharepoint.com/personal/wac3_byui_edu/Documents/GitHub/cse270-course/Reading/Reading.html)

As you complete the reading, try to answer the following questions:

* What is the difference between Verification and Validation?
* Why is bug reporting important to Testing?

# What is a Bug Report?

## Overview

Most programs and projects keep a database of bugs and issues found during reviews. Creating a good report is important to capture the information used to fix the codebase. This discussion will help you discover what should be in a bug report. You will be going through 3 different iterations of the report with the help of your classmates.

## Topics

As a team of 2-4, you will create a list of items that you think should be in a bug report.

### Scenario

You are the Point of Contact for one of [Dr. Mobile](https://byui-cse.github.io/cse270-course/Labs/DrMobil.html)'s features, and there is a defect in one of your features. You received the report, and all it said was, "Feature XYZ did not work." As you know, this would not be very useful.   
Pick a feature of [Dr. Mobile](https://byui-cse.github.io/cse270-course/Labs/DrMobil.html) that you would like to be an expert. Create a list of 20 questions you would like to know about the defect that spawned the report.

Here is a list of bugs found during regression testing. Each feature is listed before the colon.

* Login: The user was unable to enter a password
* Login: Username and password was not validated
* Login: Username and password was not verified
* Setting: Software is unable to detect Battery values from BatterySensor
* Setting: Software is unable to see Solar deals from SolarSensor
* Setting: Sound Sensors are not working
* Setting: Vibration Sensors are not working
* Setting: User information is not displayed.
* Setting: Communication features are not installed
* PatientMenu's AddPatient does not allow the user to input the Last Name
* PatientMenu's AddPatient Add button does not clear previous NewID
* PatientMenu's Diagnosis: Enter Temperature does not validate input.
* PatientMenu's Diagnosis: Enter Heartbeat does not validate input
* PatientMenu's Diagnosis: Enter O2 Level does not validate input
* PatientMenu's Diagnosis Enter Blood Pressure inputs both values but should be two fields.
* PatientMenu's Monitor does not display O2 Level.
* PatientMenu's AddPatient Cancel button clears/deletes Patients information if Enter New Id contains the Patient ID
* PatientMenu's Diagnosis Bandages feature does not update Communicate Order Supplies when usage exceeds threshold settings
* PatientMenu's Diagnosis Cleanser feature does not update Communicate Order Supplies when usage exceeds threshold settings
* PatientMenu's Diagnosis Tissue feature does not update Communicate Order Supplies when usage exceeds the threshold in settings
* PickupTransport: The request Supply Drop feature is not implemented
* PickupTransport: Request Pickup of Patient feature is not implemented
* PickupTransport: Request Transport Home feature is not implemented

### Brainstorm

With the help of classmates, improve your list of questions. Look at your classmate's questions and devise ten additional questions. Give credit to your classmates as a reference (Reference at least five different classmates).   
Reply to your post with your additional questions.

### Create a Report

Take your questions and create a report form. The report form should be in the form of an HTML table. Post the table as a reply to your post Scenario post.

### Improve the Report

Look at your other classmate's Report Form. Find ten things that you could add to improve your form. Re-post your HTML table Report Form. Make sure you give your classmate's ideas credit, using citation reference [#]and a footer with the classmate's name. #. John Smith. You need to have more than four classmate references.  
Additions provided by classmates should be in italic & blue. Underline extras added by you.

### Create an example

Using your form, create an example of the form from the original presented problem. Add that example to your thread as a reply.

## Rubric

Use the following rubric to help understand the expectation.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Exceptional 100%** | **Good 90%** | **Acceptable 70%** | **Developing 50%** | **Missing 0%** |
| **Original post of 20 questions 20%** | Questions are generic enough that classmates can reuse them. | All 20 questions organized by category | All 20 questions | Missing 1-2 to significant questions | 1st post was not 20 questions |
| **Brainstorming +10 questions 30%** | Questions help with form creation | Ten questions improve existing categories | Additional Ten questions | Missing 1-2 to significant questions | 2nd post was not ten additional questions |
| **Report Form 10%** | Additional information | The report is formatted professionally | Report address all 30 questions | The report is missing significant information | No Report Form presented |
| **Revised Report Form 20%** | Ten different classmate's references. | Five classmate's references | Ten improvements to the revised Report form | The report is missing significant information | No Revised Report Form |
| **Example Report  20%** | The report has enough information that it can be tested reproduced. | All elements in the form are detailed. | All form elements are complete. | The report is missing significant information | No Example Report |

The distribution of points starts at 50 percent for the minimal participation expectation, and additionally stated expectations increase the percents.

# Prove: The Bug Report

## Overview

Using the bug report of your classmate, fill out the report on the different bugs found in the Customer Presentation Lab's current issues.

## Backstory

After the Customer's Presentation (Lab), the customer wants to see the actual bug reports on the issues given.

## Instruction

Using your Teach activity bug report form, create five bug reports for the following bugs:

* Login: The user was unable to enter a password
* Login: Username and password was not validated
* Login: Username and password was not verified
* Setting: Software is unable to detect Battery values from BatterySensor
* Setting: Software is unable to see Solar deals from SolarSensor
* Setting: Sound Sensors are not working
* Setting: Vibration Sensors are not working
* Setting: User information is not displayed.
* Setting: Communication features are not installed
* PatientMenu's AddPatient does not allow the user to input the Last Name
* PatientMenu's AddPatient Add button does not clear previous NewID
* PatientMenu's Diagnosis: Enter Temperature does not validate input.
* PatientMenu's Diagnosis: Enter Heartbeat does not validate input
* PatientMenu's Diagnosis: Enter O2 Level does not validate input
* PatientMenu's Diagnosis Enter Blood Pressure inputs both values but should be two fields.
* PatientMenu's Monitor does not display O2 Level.
* PatientMenu's AddPatient Cancel button clears/deletes Patients information if Enter New Id contains the Patient ID
* PatientMenu's Diagnosis Bandages feature does not update Communicate Order Supplies when usage exceeds threshold settings
* PatientMenu's Diagnosis Cleanser feature does not update Communicate Order Supplies when usage exceeds threshold settings
* PatientMenu's Diagnosis Tissue feature does not update Communicate Order Supplies when usage exceeds the threshold in settings
* PickupTransport: The request Supply Drop feature is not implemented
* PickupTransport: Request Pickup of Patient feature is not implemented
* PickupTransport: Request Transport Home feature is not implemented

### Bug Report

Of the five different issues, you will be using various report forms. For the first three bug reports, you will use your report form from the Teach Discussion. For the 4th and 5th bug reports, you will use a classmate's bug report.

## Reflection

Answer the following questions:

* What part of your forms did you find the hardest to fill-in?
* What part of your form do you think could be auto-filled? Have preset data?
* What part of your classmate's form was the hardest to fill-in? What improvements do you suggest?

## Make it your Own

The completion of the core of this assignment is 89%. The assignment needs additional personalized work to achieve 100%.

Find a bug report in the real world. Provide a reference. Answer the following questions:

* What fields were you missing?
* What how would you improve the form you found?

## Submission

Make sure that you upload a copy of your document to iLearn. Upload your test code.

## Rubric

Use the following rubric to help understand the expectation.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Exceptional 100%** | **Good 90%** | **Acceptable 70%** | **Developing 50%** | **Missing 0%** |
| **Bug Reports 80%** | Make it your own | Reflection is included as a separate document | 5 Bug Reports | Has two or more significant issues | No answers to questions |
| **Professionalism 10%** | Make it your own | Properly cited, there are no grammar or spelling errors, and the writing style is "professional." | Found an instance of a spelling error, grammar error, incomplete citation, overly verbose wording, poor formatting, or poor writing. | A citation is missing where one is needed (plagiarism alert!). | Gross spelling/grammar errors or other aspects of the writing that make the paper difficult to read. |
| **Citations 10%** | One of the citations is a primary source | Contains 3-4 citations other than the reading. | Contains 1-2 more citations other than the reading | Contains citations from the reading | No Citations |