# Week 13: Instructor Notes

## Overview

Students will explore the necessity of policies, plan, and procedures to reduce risk and increase ROI. Student will also explore roles and responsibilities of a testing project.

## Objectives

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

* Arrange policies, plans, and procedures
* Utilize CMM Level to distinguish roles, reconsolidates, and deliverables

## Before the Week Begins (Prepare)

### Preparation:

* Reading

### Partnership/Group work:

* Partners will work on the Lab and Ponder assignments to create two plans, one dealing with delivery and the other with project management.
* Check Canvas “groups” to verify that all students are enrolled in a group.

## During the Week (Teach)

### Labs:

* Updating Software
  + After addressing the risks dealing with security and architectural issues, you need to make sure any future issues can be addressed. You have convinced the Powers That Be that being able to update the software is essential in improving product quality.
  + You are to describe how you are going to update the software.
* Check Canvas “groups” to verify that all students are enrolled in a group.

## Looking Ahead

Next week's announcements:

* Please create and post your Announcement for W14 by Friday of this week, at least by Monday.

# Prepare

## Overview

To maintain consistency between projects, companies need to establish policies, plans, and procedures applicable to all projects. Understanding the differences, reading them, and producing them will be invaluable and increase ROI. Understanding the different roles of CM, DM, and Software Management in Testing helps with software production and delivery.

* Other Roles
  + Configuration Management consists of legal accounting of 3rd party software (COTS, FOSS), project development software, integrated software as part of the delivery, and delivery constraints and scenarios.
  + Data Management consists of document control and versioning, software development folders, tests & test data, and licensing issues.
  + Software Management consists of code repositories, versioning and patching software, delivery schedules, and peer reviews.
  + Change Management consists of how and when code, libraries, and data change and the effects of downstream changes.

## Objectives

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

* Arrange policies, plans, and procedures.
* Utilize CMM Level to distinguish roles, reconsolidates, and deliverables.

## 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 read, try to answer the following questions:

* What is the difference between Policies and Plans?
* How vital is good data management within your test team?
* What is in a Version Development Document?

# What does Testing have to do with Project Management?

## Overview

Project Management is essential to project success. Testing plays a vital role in Project Management. But too many times, Testing ends up at the end of the pipeline, causing scheduled time for Testing to be scrunch to meet the delivery date. This assignment aims to understand the role of Testing in project management, not necessarily with project managers.

## Topics

Based on your reading, work in groups of 2-4 individuals.

Answer each of the questions from the list below. Answer the question by researching the topic and provide a summary for each group of questions. Make sure you cite your sources; you need to have at least two others, not from the readings.

### Project Management Techniques

* Arrange Policies, Plans, and Procedures
  + What is the difference between Policies and Plans?
  + What is the difference between Plan and Procedures?
* Utilize CMM Level to distinguish roles, responsiblities, and deliverables
  + According to CMM, what testing roles are need?
  + According to CMM, what are the testing deliverables?

### CM/DM

* How vital is good configuration management within your test team?
  + What are the different types of configuration management?
  + What is essential to configuration management?
* After reading the Configuration Article, what elements apply to your test team?
* How vital is good data management within your test team?
  + What is Data Management?
  + What is essential to good Data Management?
  + What techniques would you use to ensure good Data Management?
  + What some risks?

**Dev Ops**

* What type of management of tasking will your test team use?
  + A form of Software Methodology? Or some other means?
* In Module 6 we discussed DevOps.
  + What elements of DevOps will help your Test Team? What would happen if communication is not maintained?
* What is in a Version Development Document?
  + What are different examples of versioning?
  + How often should it be updated?
  + Why is it important?
* What are the different types of development environments?
  + What possible needs might your test team require in your test environment? How would you justify it if you are on a tight budget?

## Rubric

Use the following rubric to help understand the expectation.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Exceptional 100%** | **Good 90%** | **Acceptable 70%** | **Developing 50%** | **Missing 0%** |
| **Questions 70%** | Answered all question, clearly described and well supported with quotes | Answered all the question in detail. | Missing 1-2 answers, and answers are detailed. | Missing majority of answers to questions or answers consist of 1-2 sentences. | No answers to questions |
| **Team Work 20%** | Assignments have meeting time or team discussion summary | Assignments are identical | Team assigned different question to individuals, and compiled into one document | Team assigned different questions to individuals, and sent in individually | Team worked on assignments individually and submitted individually |
| **Professionalism 10%** | The paper is easy to read and communicated. | 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. |

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

# Prove: Project Test Plan

## Overview

Throughout the semester, you have created several different plans; in this assignment, you will be putting them all together in a project plan.

## Backstory

At the beginning of the semester, you created a Test Business Case. This assignment will help transfer that from a business case to a company test plan.

In week 11, you create a Integration Plan. This week’s assignment is different. The Integration plan was mainly focusing on the product. The Project Test plan is focused on the testing elements associated with the project.

## Instruction

You will be creating a master plan for testing [Dr. Mobile](https://byui-cse.github.io/cse270-course/Labs/DrMobil.html). Each step will help you put together information into the plan. You will work in your group and develop the plan.

The plan is focused on the project and not necessarily the product (unlike Module 09 Integration plan)

### Outline

* Title Page
  + Test Team name
  + Project Name
  + Signature block: with authors names and date
* Section 1: Testing Approach: Identifies the testing approaches for each phase of the Software Lifecycle.
  + Summarize the information in Module 3, to identify the phases and testing techniques used for each phase (Module 4).
  + Minimal Requirement: There are 5 phases, each with sub-phases. For each sub-phase, define the phase, and the appropriate testing technique.
* Section 2: Tools: Specifices how the tools are approved, used and approved.
  + Identify at least two framework tools and two automated tools (Modeule 6) that should be used in testing.
* Section 3: Achitecture: Define the architectures and non-functional qualities.
  + Providelist of testable architectures that Dr. Mobile uses, and how they will be tested.
  + From Module 4, explain the Quality Model for Dr. Mobile. The model should contain the model and quality characteristics.
* Section 4: Data: Specifies what data needs to be stored, maintained, and it location.
  + A part of different tests, data is needed for input (canned data), along with data generated (log files, and output products). This data needs to be identified, stored and updated.
  + You for each sub-phase of the Testing phase (Unit, Regression, Intigration, System, Acceptance), identify the type of data that will be needed, and what the pontental output of the phase would produce.
* Section 5: Issue Reports: Specifies what issues are to be reported, and how they are approved and resolved.
  + The source of this section is Module 10.
  + The section will include identification what needs to be reported.
  + The section will also how it will be approved to be fixed. (Who needs to look at it? What is the criteria on if should be fixed?)
* Section 6: Version Control: Identifies specific policy on version numbering for bug tracking and testing.
  + Section contains the Version control numbering scheme.
  + Contains possible testing issues, and how version control scheme will help. Sepecifically:
    - Emergency patches for minor versions.
    - Determination of when a critical bug is found in x.y.z version, what is the eariest possible turn around time for next version (minor or major)?
* Section 7: Risk Mitigation:Process of identifying testing risks, severity determination, and mitigation techniques
  + Intentify the process the project will conduct to identify risk issues and mitigation them.
  + The section should include severity criteria and which mitigation technique should be used for each severity level.
* Section 8 Test Environment: Outline the test environment for each testing level phase.
  + As with section 4, the testing level phases (Unit, Regression, Integration, System, and Acceptance), will have there own testing needs. These needs are easy developer’s environment, to simulations, to complex sandboxes (temporary hardware, and eventually to a test bed, and alpha/beta testing with the customer.
* Appendix A: Lesson Learned.
  + Provide a summary of lessons that you learned about testing so far in this class.

## Make it your Own

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

Contact two other groups in the class and complete a review of each group's plan. Turn in a checklist and your findings.

## Submission

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

This assignment summarizes what you learned during the semester and is worth double the past Ponder assignments' point value.

## Rubric

Use the following rubric to help understand the expectation.

A citation is missing where one is needed (plagiarism alert!).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Exceptional 200%** | **Good 180%** | **Acceptable 140%** | **Developing 100%** | **Missing 0%** |
| **Project Test Plan 80%** | Make it your own | The detail level is convincing and well thought out. | Contains all elements: Methodologies, Tools, Architectures, Data, Issue Reporting, Version Control, Checklists | Has two or more major issues | No answers to questions |
| **Professionalism 10%** | Make it your own | 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 |