**Project Management Tools**

**Slide 1: Title**

Welcome to our presentation on project management tools. Today we will be showcasing the options available when it comes to project management tools, the application of these tools to an example case study and why you as a user should implement these project management tools into your daily work.

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Project management tools can be found across multiple industries in this day and age. Chances are that if you working in a team to achieve a common goal then a project management tool will be involved at some point.

In short: A project management tool is a program or website that simplifies the process of working in large or small teams to achieve a shared goal, this is typically simplified through use of clean easy to use interfaces and the creation of charts and graphs to make information more interpretable

* Paper Based - Checklists, forms, templates (A hand drawn Gantt chart)
* Automated - located on a local computer for primary users ( i.e Microsoft Project)
* Web based – schedule is created and accessed through a web client (Slack, Monday, Wrike

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Nothing can derail a project quicker than poor organization and a lack of communication, using a project management tool will allow you to streamline the necessary components for a successful project these include:

Easy Collaboration: A project management tool will make it easier to collaborate on large projects, most software allows for the centralised sharing of documents, real time project timelines and status updates.

Better Schedules – A schedule can be difficult to follow, even more so if there is no system in place to show what needs to be completed, the most common approach using management tools is to create a Gantt Chart, these charts allow for an employee to see what remaining tasks and deadlines at a glance.

Track Projects – Most project management software will allow for easy tracking of your current project, this is usually achieved through real time updates detailing progress. This feature eliminates the need for constant progress evaluation meetings

Better Communication – A number of project management tools include a built in instant messaging service that not only allows for improved communication between employees but also allows for clients and other third parties to collaborate.

Delegate Tasks Easily – Project management tools can clearly define a team members role within the team,

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Here you can see a selection of project management tools each weighed with their own advantages and disadvantages

Examples of Project management tools include:

Microsoft Project – Microsoft’s own project management tool, allows for allocation of resources and creation of Gantt charts, but is difficult to learn and even harder to master

Zoho – a web-based project management client that includes a responsive interface and an approach to project management that is compatible with many third party applications such as Google drive and Dropbox, Zoho runs on a subscription payment

This is a very limited selection of tools there are many other options available such as Trello, Jira, Smartsheet, , Monday, Basecamp, OpenProject, Oracle Primavera, Celoxis, Teamgantt, Liquid planner to name a few.

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Even though there are countless project management programs they all more or less perform the same task. They take large volumes of data and present it in a manageable format. Today I will discuss two methods used by project management tools.

**Slide 6:**

A Gantt Chart is used to track tasks across a set period of time, these charts have become the industry standard over the past few decades, when gantt charts where first created they were fairly simple but over time have evolved to also include: Phases, Milestones, Tasks and Resources.

**Slide 7:**

Here we have a schedule that provides a simplified approach to building a house. The tasks are listed in order of importance, for example you can’t install a roof when there are no walls. The windows and doors should be installed before any electrics are fitted; most project management tools include creation facilities for Gantt charts

**Slide 8**

Here is the same information but formatted into a Gantt chart. Most of the tasks are dependent on the previous task being completed on time; however the plumbing and electrics can be fitted simultaneously. This example is a very basic Gantt chart as it doesn’t feature milestones or resource management, it also doesn’t allow provide any leeway in regards deadlines

**Slide 9 :**

A PERT chart is a graphical illustration of a project as a mapped diagram consisting of nodes connected by directional arrows, the arrows represent the sequence in which events need to be completed. Sometimes PERT charts are preferred over standard Gantt charts because they allow for a more detailed insight into the duration of a project’s tasks and its clearer illustration of task dependencies.

**Slide 10:**

Here is the same data from earlier, notice how tasks 8 and 9 occur at the same time, when formatted into a PERT chart these are known as Concurrent tasks. Whereas other nodes with more linear prerequisites are known as “serial events”

**Slide 11:**

This PERT chart allows the user to view the projects critical path; here it is represented by a red border on each node. Project management tools will often automatically calculate the critical path using the information provided during the planning process.

**Slide 12**

I will now pass you over to Connor, who will apply these tools to the case studies.