Unit 9 **IT Project Management**

KNOWITALL NINJA

Introduction to Project Management

Learning Aim A: Principles & Methodologies

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Learning Objectives

To be able to explain what is meant by Project Management.

To be able to explain what is meant by Project Scope.

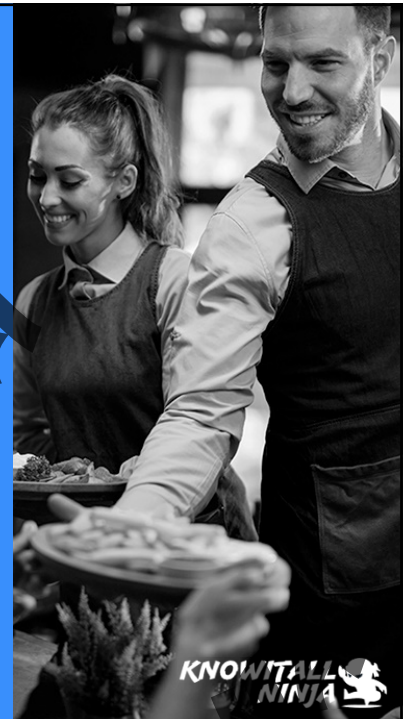To be able to explain what is meant by a Constraint.

KNOWITALL NINJA

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Imagine You Work at a Restaurant

Someone comes in and sits down.

They order from the menu.

They give their order to the waiter.

The waiter takes the order to the kitchen.

Now Imagine You Work in the Kitchen

An order comes in for some food.

You might be working on the sauce.

Another person might work on the meat.

Another person might work on the vegetables.

Someone will need to make sure that they all are cooked together.

Someone will need to put them on the plate.

The Head Chef Will...

Figure out the menu.

Work out how the food is to be cooked.

Tell all the assistant chefs what to do.

Check that things are going ok.

End up putting the food on the plate.

Deal with any complaints from customers.

This Food Order Needs to be Managed!

You had a **start point.**
- This was when the order was placed.

You had a team of people working on different parts of the order.
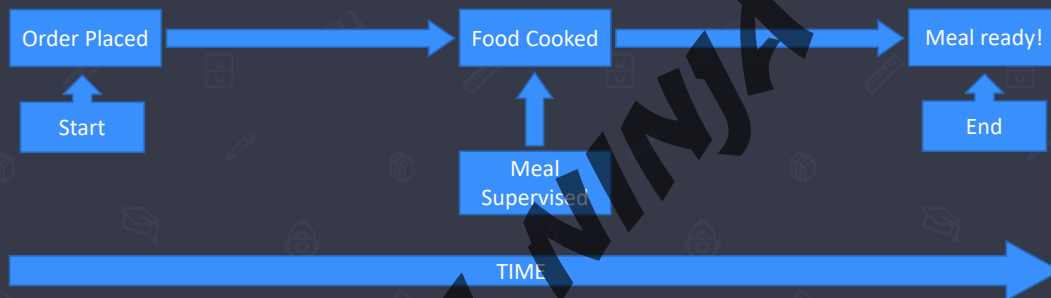- They had to make sure all their food was ready at the same time.

The order had **an end point.**
- This was when the food was given to the customer.

All of These Happened in Turn

Order Placed → Food Cooked → Meal ready!

Start

Meal Supervised

End

TIME →

What Is This Unit About?

You are studying a BTEC in IT.

You are hopefully going to get a job in IT.

At some point you will be working on a project.

This project will need to be managed.

What Is Project Management?

A project may have dozens of people working on it.

It will have a **start point** and an **end point**.

Someone will need to make sure the project finishes on time.

If you join the company in the middle of a project....

Someone will need to tell you what to do and assign you to a task.

This happens all the time in IT.

What are Typical IT Projects?

Building a new piece of software.

Installing a new IT system.

Installing a new network.

Writing a system for information collection (e.g. your school register that tracks attendance).

Writing a system for information analysis (e.g. a program that produces reports using the attendance data).

Task 1.1
Typical IT Projects

From your own experience of IT either at home or at school...

List as many examples of typical IT projects that you can using the headings in the previous slide.

EXTENSION: how do you think they were carried out?

Time Allowed: 15 minutes

Project Scope - 1

A project will have a defined (or agreed) beginning.

It will also have a defined (or agreed) end.

This will be an agreed date and time.

If your project goes over this end date it is called PROJECT SLIPPAGE!

Think About Upgrading Your School Computers

This project cannot happen during term time.

It must happen during the holidays.

It must finish before term starts again.

<u>DISCUSSION POINT:</u> Why is this?

Think About Upgrading Your School Computers

The computers cannot be changed while students are in school:
- You will be having lessons.
- You will be preparing for exams.
- You will be working on assignments.

Computers can only be changed when the school is empty.
- The project must start after July 20th.
- It must be finished before August 30th.

Project Scope - 2

You will also have a defined list of tasks to accomplish.

You will need to make sure these happen.

If you agree to update the computers in two labs you must achieve this.

If you update only one lab, your project has failed.

If you update three labs, then you have done more than agreed.

<u>DISCUSSION POINT</u>: Why is doing more than you have agreed a bad thing?

Project Scope

If you do more than what was asked:
- Where did the money come from?
- Where did the staff come from?

You had a budget to upgrade 2 computer labs...
- You upgraded 3.

What is the problem with this?

Project Scope

This would have cost extra money for the extra equipment.

You would have to have paid the employees to do the extra work.

They may have been needed for other projects.

This was not agreed at the beginning of the project.

You have spent someone else's money without permission.

Project Scope

You also had a set amount of time to do the upgrade.

You did it faster than you planned.

You should have then moved onto the next task in your list.

Not do something that wasn't wanted for free.

Task 1.2
Project Scope

Individually or in small groups:

Think about the project for adding a new student registration system.

What are the start and end times of the project and why?

What are the required tasks of the project and why?

Time allowed 15 minutes

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What Is Project Management?

This involves:
- Planning project activities - working out what to do.
- Organising project activities - working out who does what.
- Controlling project activities - making sure things happen.

This is so that the project is completed:
- On time.
- On budget.
- To a good standard.
- Any risks have been taken into account.

People who do this are called Project Managers.

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What Are Constraints?

These are things that stop you doing what you want to do.

Objective: I want to live on my own desert island.

Constraint: I don't have lots of money so I can't have an island!

What Are Project Constraints?

An ideal project will have unlimited time, unlimited money and unlimited people.

In the real world this is not possible.

Your constraints are:
- **Time**: You cannot spend forever on a project - it must have a finish date. This means you only have a certain amount of time to spend working on a project.
- **Budget**: there is only so much money to spend on a project.
- **Quality**: the project must be good enough to be worthwhile.
- **Resources**: You don't have enough people to work on the project.

Task 1.3
Project Failure

Research any large IT projects that have failed by:
- Going over budget.
- Taking longer than predicted.
- Not working properly when finished.

Do any of these projects have anything in common?

On the next slide are some suggested projects to research.

Project Ideas

Project	Constraint	What happened
Universal Credit	Budget	
NHS patient record system	Budget	
Universal Credit	Time	
Windows Vista	Quality	
NHS patient record system	Quality	

Project Ideas - Answers

Project	Constraint	What happened
Universal Credit	Budget	Initial cost £2.2 Billion, Current Cost £12 Billion and rising.
NHS patient record system	Budget	Expected to cost £6.4 Billion, final cost £10 Billion.
Universal Credit	Time	Was meant to be delivered in 2015, actual delivery 2021.
Windows Vista	Quality	The worst operating system Microsoft produced, which is why all operating systems since have had numbers not names.
NHS patient record system	Quality	Project abandoned after £10 billion spent as it didn't work.

Self-Check: Lesson Review

What are the different categories of IT projects?

What are the types of project scope?

Explain the following:
- What are budgetary constraints?
- What are time constraints?
- What are quality constraints?

9.1 Resources

ADDITIONAL LEARNING OPPORTUNITIES

Further Reading

Websites:

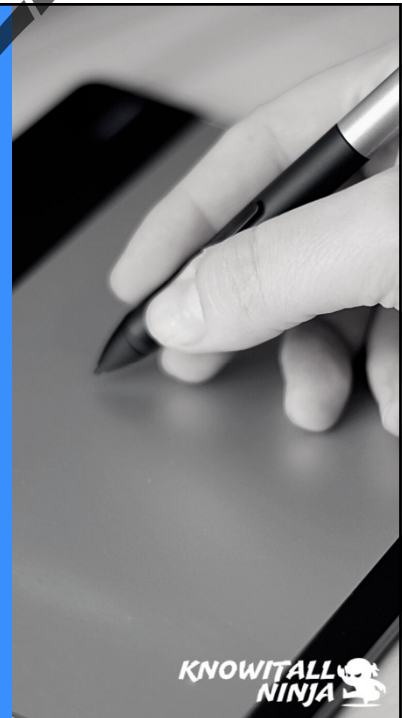https://searchcio.techtarget.com/definition/project-scope

https://www.potential.com/articles/project-scope/

https://www.projectmanager.com/blog/project-scope

https://www.simplilearn.com/project-scope-management-importance-rar89-article

Video tutorial:

https://www.youtube.com/watch?v=rBSCvPYGnTc

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