

# ISAD357SL

## Software Development and Project Management

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# Outline

1

Explore what “management” means in terms of Project management

2

Introduce Management activities

- Identify stakeholders and objectives

3

Consider the challenges to Project Management

4

Introduce project lifecycle



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# What is “Management”

- A set of tools, templates and processes that address the following:
  - What is the “added value” that this project brings?
    - The business case, the business value
  - What do we need to do?
  - What will we do?
  - How will we do it?
  - How will we know we did it?
  - How well did we do?



# What that means

- It is NOT routinely filling in forms and submitting reports
- A challenging world where you need to be an effective leader, function at limits of your creativity and to be courageous at all times
- You will have to look inside your toolkit and come up with creative solutions



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# Formal definition

- “The application of knowledge, skills, tools and techniques to project activities to meet the project requirements”
- Project management institute, (2013), A guide to the Project Management Body of Knowledge, 5<sup>th</sup> Edition, Newtown Square, PA, Project Management Institute.



# Management Activities

- **Planning:** deciding what needs to be done
- **Organising:** making the arrangements
- **Staffing:** selecting the right people for the job
- **Directing:** giving instructions
- **Monitoring:** checking on progress
- **Controlling:** taking actions to fix hold-ups
- **Innovating:** coming up with new solutions
- **Representing:** liaising with clients, users, developers, suppliers and other stakeholders



# Stakeholders

- People who have a stake or an interest in the project
  - Sponsors; clients; customers; users
  - Business process engineers; resource managers; project managers; business analysts
  - Developers; implementers
- Within the project team
- Outside of the project team but inside the organisations
- Outside both project team and the organisation
- Are likely to have different objectives
  - So need to define common project objectives
  - Stakeholders who own the project will define the project objectives



# Activity – Exercise 1

- Identify the stakeholders in the scenario – List on flip chart paper

**Scenario:** Brightmouth College is a higher education institution which used to be managed by a local government authority but has now become autonomous. Its payroll is still administered by the local authority's administration centre. The authority now charges the college for this service. The college management are of the opinion that it would be cheaper to obtain an “off-the-shelf” payroll package and do the payroll processing themselves.





# Identified Stakeholders



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# Objectives

- What needs to happen to define “success”
  - Desired outcomes rather than tasks
- The project manager sets the scope, allocates or approves costs
- Objectives look at what the situation will be when the project is completed
- The objectives should be SMART: Specific, Measurable, Achievable, Relevant and Timely



# Controlling objectives

- Management involves setting objectives for a system and then monitoring the performance
- Need to collect data that is meaningful
  - Raw data e.g: location x has processed 200 documents will not be as meaningful as location x has processed % of documents
- Objectives should have a meaningful way of being tested
  - Agile involves Test Driven Development (TDD)
- Managers will model consequences of potential solutions



# Challenges

- Project management approaches have changed hugely in last 30 years
  - Traditional PM approaches based on engineering principles
    - Requirements known, clients knew what they wanted technology stable.
  - Modern approaches now favour Agile approach for being flexible and adaptable
    - Change expected and managed appropriately
- Project Managers need to understand the business systems
  - Internal and external factors and influences



# Managing creep

- Scope
- Hope
- Effort
- Feature



**The Creeps**



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# Scope creep

- Any change in the project that was not in the original plan
- It is a reality that needs to be dealt with
- The project manager should identify how these changes will be accommodated



# Hope creep

- When a project team member falls behind but does not admit to it
  - They report they are on schedule
  - They “hope” they can bet back on schedule before the next report date
- The member of staff does not want to give bad news
- So the PM must verify the accuracy of the status reports received from team members
  - TDD and Continuous integration helps here

Includes students!



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Worth a read:

<https://www.sitepoint.com/how-privileged-are-programmers-are-you-a-john-too/>

# Effort creep

- Results of a team member working but not making progress proportionate to the amount of work expended
- Each week the status report records progress, but the amount of work left to do does not decrease
- Increase the frequency of status reporting from those team members who seem to suffer from effort creep





# Feature creep

- Closely related to scope creep
- Happens when team members arbitrarily add features and functions to the deliverable that they think the client would want to have
- Client did not specify this probably for a good reason
- If team member has strong feelings for the need to add this change, then a formal management process should be utilised



# Management Activities

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**Reminder**



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# Activity – Exercise 2

- Read the description of a day in the life of a project manager
  - Highlight where you see him carrying out the management activities from the previous slide
- **Planning**
  - **Organising**
  - **Staffing**
  - **Directing**
  - **Monitoring**
  - **Controlling**
  - **Innovating**
  - **Representing**



# Review

Activity	Detail
Planning	
Organising	
Staffing	
Directing	
Monitoring	
Controlling	
innovating	
Representing	



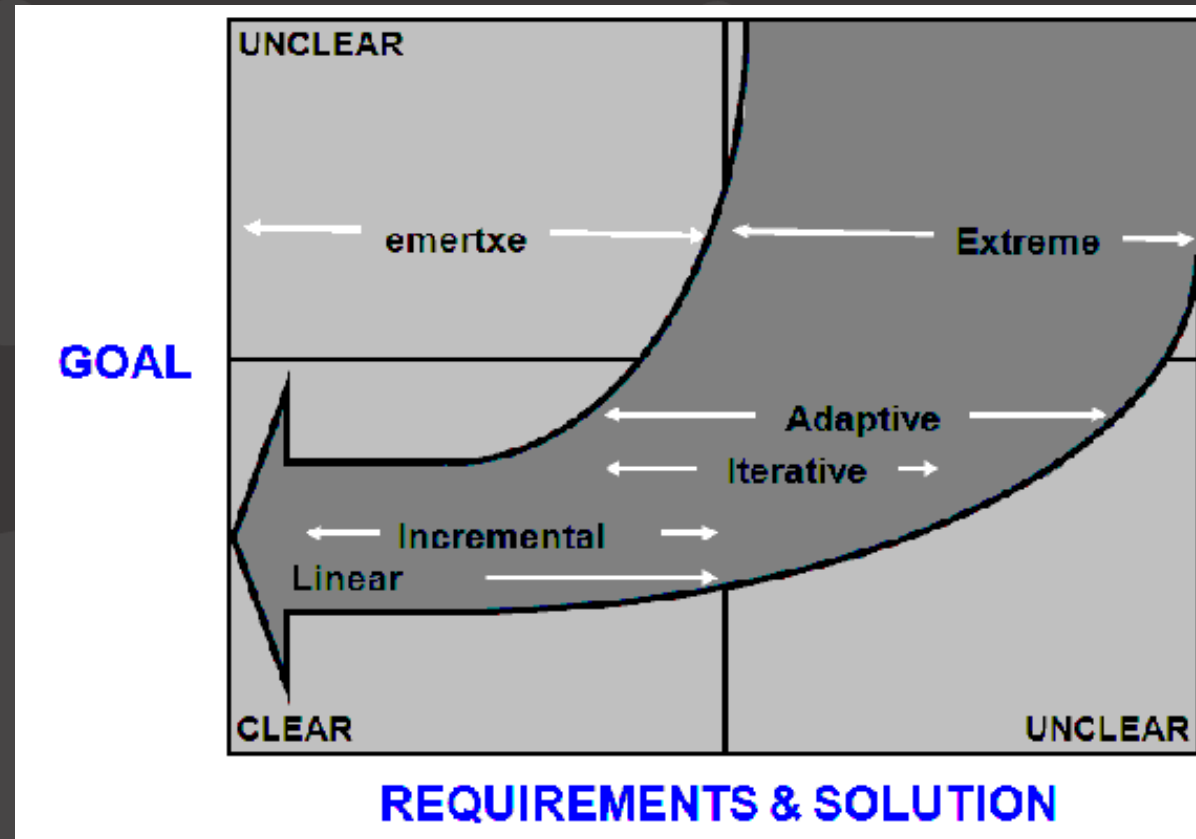
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# Project Lifecycles

- A sequence of processes that include:
  - Scoping
  - Planning
  - Launching
  - Monitoring and controlling
  - Closing



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Wysocki, R.K., (2014), Effective Project Management : Traditional, Agile, Extreme, Wiley & Sons, Indianapolis, US.

# Scoping

- What business situation is being addressed?
- What does the business need to do?
- Determines how you know that you have done it
  - What does “done” look like?
- Process is:
  - Identifies stakeholders
  - Recruits project manager
  - Elicits needs and high level requirements from client
  - Documents the clients needs
  - Writes a one page description of the project
  - Gains senior management approval



# Planning

- Includes all process related to *What will we do and How will we do it*
- Process is:
  - Define the work of the project
  - Estimate how long it will take to complete the work
  - Estimate the total cost of the work
  - Sequence the work
  - Build the initial project schedule
  - Analyse and adjust the project schedule
  - Write a risk management plan
  - Document the project plan
  - Gain senior management approval to launch the project





# Launching

- All processes relating to recruiting and organising the team, establishing the team operating rules
- Relates to getting the project work started
- Process is:
  - Recruiting the project team
  - Writing a project description document
  - Established team operating rules
  - Establishing the scope change management process
  - Managing team communication
  - Finalising project schedule
  - Writing work packages



# Monitoring & Controlling

- All processes relating to answering the question “How will you know you did it”
- Relates to the ongoing work of the project
- Process is:
  - Establishing project performance and reporting system
  - Monitoring project performance
  - Monitoring risk
  - Reporting project status
  - Processing scope change requests
  - Discovering and solving problems



# Closing

- All processes relating to completing the project, including answering the question “how well did we do it”?
- Process is:
  - Gaining client approval of having met project requirements
  - Planning and installing deliverables
  - Writing the final project report
  - Conducting the post-implementation audit



# Activity – Exercise 3

- Return to the payroll scenario from exercise 1
- List on flip-chart paper the objectives and sub-objectives you can identify
- Think about how you measure your objectives



# Thank you

If you have any questions, please ask them at the start of the next session.

**REMINDER:** The next session will start promptly at 15:00



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