# Project Management for IT Projects: part 2
# **INNOVATIVE PROJECTS**
## LESSON 10-May 2025
## **EXERCISES**

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# Course agenda (part 2:INNOVATIVE PROJECTS)

1. INNOVATION AND METHODOLOGIES
2. AGILE CONCEPTS
3. AGILE METHODOLOGIES OVERVIEW WITHOUT SCRUM
4. SCRUM
5. LEAN
6. DESIGN THINKING
7. VALUE DRIVEN DELIVERY
8. STAKEHOLDERS,TEAMS,ADAPTIVE PLANNING
9. CASE STUDIES

**10EXERCISES**

11.CONTINUOUS IMPROVEMENT and REVIEW

# PROJECT MANAGEMENT FOR IT REVIEW LESSONS 1-9

General analysis of AGILE APPROACH

8 METHODOLOGIES  **outlining 3 words and 2 main methodoligies:**

# ITERATION-REQUIREMENT-DONE,
# SCRUM

# HYBRID APPROACH

# EXERCISE

1-Definition of «done» for software projects (10 points)

2-To what the gulf of evaluation refers to?

A-Gap between product owner and testers knowledge

B-Mismatch between customer's vision and team understanding of a solution

C-Disparity between what a customer want and what he really need

# 1A-DEFINITION OF DONE FOR A SOFTWARE PROJECT

1. ***Tested: all tests finished?***

2. ***Coded: all code written?***

3. ***Designed: code refactored?*** (making small changes without altering the behavior)

4. ***Integrated: fitted  into the rest of software?***

5. ***Builds: any new modules from the script?*** (script is a program, written in a particular class of programming languages, i.e. scripts designed to be executed within an operating shell)

6. ***Installs: does the script include the user story in the automated installer?***

7. ***Migrates:does the script update the database schema if necessary?***

8. ***Reviewed: have customers confirmed that the user story meets their expectations?***

9. ***Fixed:have all known bugs been fixed or rescheduled as their own user stories?***

10. ***Accepted: do customers agree that the user story is finished?***

# 2 A-To what the gulf of evaluation refers to?

C-Disparity between what a customer want and what he really need

# EXERCISE 2/1

- 1-What would be a step forward in your team's evolution?

A. FROM PROFICIENT TO COMPETENT
B. FROM FORMING TO STORMING
(Forming=the team starts from scratch as new, or a new member joins
(Storming=team members compete to have their ideas accepted)
C.   From self-organized to empowered

# ANSWER EXERCISE 2-QUESTION 1

## FROM FORMING TO STORMING

# EXERCISE 2/2

If it is not possible to locate all team members in the same location what are they likely to experience?

A. HIGHER LEVELS OF CONFLICT

B. MORE PRIVACY

C. LESS DIFFICULTY REACHING CONVERGENCE

D. MORE COMMUNICATION CHALLENGES

# ANSWER EXERCISE 2-QUESTION 2

## MORE COMMUNICATION CHALLENGES

DISTANCE MAKES IT EASIER TO IGNORE DISAGREEMENTS

TRUE CONVERGENCE IS MORE DIFFICULT

IT DOES NOT NECESSARILY MEAN MORE PRIVACY

# EXERCISE 2/3

3. As an agile team leader what do you want to avoid:

A-prioritizing team goals

B-rewards for expected behaviour

C-individual motivation

D-reward individual goals at the expense of project goals

# ANSWER EXERCISE 2-QUESTION 3

## REWARD INDIVIDUAL GOALS AT THE EXPENSE OF PROJECT GOALS

- **AN EFFECTIVE TEAM LEADER UNDERSTANDS INDIVIDUAL GOALS AND LEVERAGES THEM FOR THE GOOD OF THE PROJECT**

# CONCEPTS (NOT DEFINITIONS!) OF:

-*agile*
-*SCRUM*
-*design thinking*
-*iteration*
-*requirement*
-*done*

-*stakesholders*
-*team*
-*adaptive planning*
-*problem facing*
-*deliverable*
-*value&early delivery*

# MATCH THE AGILE MANIFESTO VALUES

- WORKING SOFTWARE

- RESPONDING TO CHANGE

- INFIVIDUAL AND INTERACTIONS

- CUSTOMER COLLABORATION

- PROCESSES AND TOOLS

- COMPREHENSIVE DOCUMENTATION

- CONTRACT NEGOTIATION

- FOLLOWING A PLAN

# SEVERE SUMMARIES

## PRINCIPLE

| | |
|---|---|
| 1 | Our highest priority is to satisfy the customer through early and continuous delivery of valuable software |
| 2 | Welcome changing requirements, even late in development,Agile processes harness change for the customer's competitive advantage |
| 3 | Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale |
| 4 | Business people and |

## SHORTENED VERSION

1. SATISFY CUSTOMERS

2. WELCOME CHANGE

3. DELIVER FREQUENTLY

4. WORK WITH BUSINESS

# SEVERE SUMMARIES PRINCIPLE

| |
|---|
| Build projects about motivated individuals. Give them the environment,support their needs, trust them to get the job done |
| The most effective method of conveying information to and within a development team is face-to. face conversation |
| Working software is the primary measure of progress |
| Agile processes promote sustainable development. The sponsors, developers and users should be able to maintain a constant pace indefinitely |

**SHORTENED VERSION**

1. MOTIVATE PEOPLE

2. FACE TO FACE COMMUNICATION

3. MEASURE SYSTEMS DONE

4. MANTAIN SUSTANAIBLE PACE

# SEVERE SUMMARIES

## PRINCIPLE

## SHORTENED VERSION

| |
|---|
| Continuous attention to technical excellence and good design enhances agility |
| Simplicity- the art of maximizing the amount of work not done – is essential |
| The best architectures, requirements and designs emerge from self-organizing teams |
| At regular intervals, the team reflects on how to become more effective, then tunes and adjusts itsbehaviour accordingly |

1. MANTAIN DESIGN

2. KEEP IP SIMPLE

3. TEAM CREATED ARCHITECTURE

4. REFLECT AND ADJUST

# SCRUM OWNERSHIP/RESPONSIBILITY

| | ITEM | DEVELOPMENT TEAM | PRODUCT OWNER | SCRUMMASTER |
|---|---|---|---|---|
| 1 | Estimates | | | |
| 2 | Backlog priorities | | | |
| 3 | Agile coaching | | | |
| 4 | Coordination of work | | | |
| 5 | The definition of "done" | | | |
| 6 | Process adherence | | | |
| 7 | Technical decisions | | | |
| 8 | Sprint planning | | | |

# SCRUM OWNERSHIP/RESPONSIBILITY ANSWERS

| | ITEM | DEVELOPMENT TEAM | PRODUCT OWNER | SCRUMMASTER |
|---|---|---|---|---|
| 1 | **Estimates** | X | | |
| 2 | **Backlog priorities** | | X | |
| 3 | **Agile coaching** | | | X |
| 4 | **Coordination of work** | X | | |
| 5 | **The definition of "done"** | X | X | X |
| 6 | **Process adherence** | | | X |
| 7 | **Technical decisions** | X | | |
| 8 | **Sprint planning** | X | X | X |

# WHAT IS MOST IMPORTANT FOR YOUR AGILE TEAM TO CONTINUOSLY FOCUS ON?

A. GETTING THE RIGHT ANSWERS

B. UNDERSTANDING THEIR TASKS

C. DEFINING THEIR TASKS

D. MEASURING THEIR PERFORMANCE

# (A)MOST IMPORTANT FOR YOUR AGILE TEAM TO CONTINUOSLY FOCUS ON

# B

**GETTING THE RIGHT ANSWERS, DEFINING TASKS, MEASURING PERFORMANCE ARE EMPHASIZED MORE IN INDUSTRIAL WORK THAN KNOWLEDGE WORK**

**KNOWLEDGE WORKERS INSTEAD FOCUS ON UNDRESTANDING THEIR TASKS**

# IN SCRUM THE DEFINITION OF DONE IS CREATED WITH THE INPUT OF EVERYONE EXCEPT THE ?

A. DEVELOPMENT TEAM

B. PRODUCT OWNER

C. SCRUMMASTER

D. PROCESS OWNER

(A)IN SCRUM THE DEFINITION OF DONE IS CREATED WITH THE INPUT OF EVERYONE EXCEPT THE

# **PROCESS OWNER**

**THE WHOLE TEAM,INCLUDING ALSO THE PRODUCT OWNER AND THE SCRUMMASTER IS RESPONSIBLE FOR CREATING THE SHARED DEFINITION OF DONE**

**THE PROCESS OWNER IS USUALLY A FUNCTION MOST INVOLVED IN THE PROCESS AND IS NOT A KEY FUNCTION OF SCRUM**

# ON A TYPICAL AGILE TEAM, WHO HAS THE BEST INSIGHTS INTO TASK ESECUTION?

A. PROJECT MANAGER

B. TEAM MEMBERS

C. SCRUMMASTER

D. AGILE COACH

# (A)ON A TYPICAL AGILE TEAM THE BEST INSIGHTS INTO TASK ESECUTION ARE PROVIDED BY:

## **TEAM MEMBERS**

**THE TEAM MEMBERS ARE CLOSEST TO THE WORK AND THEREFORE HAVE THE BEST INSIGHT INTO THE EXECUTION**

**THIS IS WHY AGILE PROJECT MANAGERS, SCRUMMASTERS, COACHES DEFER TO THE TEAM'S DECISIONS ABOUT HOW BEST TO EXECUTE THE WORK**

## 2 TEAM MEMBERS HAVE DIFFERENT OPINIONS ABOUT WHAT NEEDS TO BE BUILT TO MEET THE CUSTOMER'S REQUIREMENTS.THIS IS AN EXAMPLE OF:

A. THE DEFINITION OF DONE

B. DIVERGENCE

C. THE GULF OF EVALUATION

D. PAIR PROGRAMMING

# (A) 2 TEAM MEMBERS HAVE DIFFERENT OPINIONS ABOUT WHAT NEEDS TO BE BUILT TO MEET THE CUSTOMER'S REQUIREMENTS.THIS IS AN EXAMPLE OF: THE GULF OF EVALUATION

IF TEAM MEMBERTS HAVE DIFFERENT IDEAS ABOUT WHAT IT NEEDS TO BE BUILT IT MEANS THEY HAVE DIFFERENT INTERPRETATION OF THE CUSTOMER'S DESCRIPTION OF THE PRODUCT,WHICH IS THE DEFINITION OF A GULF OF EVALUATION

ALTHOUGH THE TEAM MEMBERS MIGHT DISAGREE ABOUT THE DEFINITION OF DONE,THEIR DISAGREEMENT ITSELF IS NOT AN EXAMPLE OF THAT CONCEPT.

IF THE QUESTION HAD STATED THAT THE TEAM MEMBERS HAVE DIFFERENT

OPINIONS ABOUT **HOW** TO BUILD A PRODUCT,THEN THAT COULD BE AN EXAMPLE OF DIVERGENCE.PAIR PROGRAMMING INVOLVES WRITING AND REVIEWING THE CODE, NOT DEBATING WHAT TO CODE

# THE GULF OF EVALUATION

- The degree of ease with which a user can perceive whether or not the action he performed was successful.

-  The gulf is small when the system provides information about its state in a easy form and meets the way the person thinks of the system.

# HOW WILL USING SHORT ITERATIONS HELP YOUR TEAM?

A. KEEP THE TEAM FULLY OCCUPIED

B. KEEP STAKEHOLDERS INVOLVED IN THE PROJECT

C. KEEP STAKEHOLDERS COMMUNICATION STREAMLINED

D. LET THE TEAM RELAX AND GET IT ACCLIMATED AT THE START OF THE PROJECT

# (A) USING SHORT ITERATIONS HELP YOUR TEAM

## KEEP STAKEHOLDERS INVOLVED IN THE PROJECT

**SHORT ITERATIONS HELP KEEP STAKEHOLDERS ACTIVELY INVOLVED IN THE PROJECT THROUGH FREQUENT ITERATION PLANNING AND REVIEW MEETINGS.**

**SHORT ITERATIONS DON'T OPTIMIZE RESOURCE ALLOCATION (=KEEP THE TEAM FULLY OCCUPIED) OR STREAMLINE COMMUNICATION.**

**AND SINCE THEY MEAN THAT AGILE TEAMS ARE ALWAYS WORKING TOWARD A SHORT TERM TARGET,THEY DON'T GIVE TEAM MEMBERS ANY TIME TO RELAX AT THE START OF A PROJECT**

# AS THE PRODUCT OWNER IN SCRUM WHAT WOULD YOU FOCUS ON?

A. FACILITATING THE RETROSPECTIVES AND PLANNING MEETINGS

B. ACTING AS SERVANT LEADER TO THE TEAM

C. ORGANIZING THE DEVELOPMENT WORK

D. MAXIMIZING THE VALUE OF THE PRODUCT

# (A) THE PRODUCT OWNER IN SCRUM WOULD  FOCUS ON...

## MAXIMIZING THE VALUE OF THE PRODUCT

**THE PRODUCT OWNER'S PRIMARY REPONSIBILITY IS MAXIMIZING THE VALUE OF THE PRODUCT.**

**IT IS THE SCRUMMASTER WHO ACTS AS A SERVANT LEADER TO THE TEAM AND IS MOST LIKELY TO FACILITATE THE TEAM'S RETROSPECTIVES AND PLANNING MEETINGS.**

**AGILE TEAM MEMBERS ORGANIZE THEIR OWN WORK**

# THE TEAM HAS DECIDED AN ITERATION 0 BEFORE STARTING THE PROJECT. WHY?

A. TO SET UP THE BUILD SERVER FOR THE PRODUCT

B. TO PRACTICE WORKING TOGETHER BEFORE THE REAL WORK STARTS

C. TO HOLD PLANNING POKER SESSIONS TO ESTIMATE THE USER STORIES

D. TO MINIMIZE AS MANY OF THE PROJECT RISKS AS POSSIBLE BEFORE PROJECT STARTS

# (A) THE TEAM HAS DECIDED AN ITERATION 0 BEFORE STARTING THE PROJECT BECAUSE...

## TO SET UP THE BUILD SERVER FOR THE PRODUCT

**ITERATION 0 IS AN OPTIONAL ITERATION THAT THE TEAM CAN USE TO SET THE STAGE FOR THEIR PROJECT EFFORTS. IT IS NOT USED FOR ESTIMATING OR FOR WORKING TOGETHER ,SINCE THOSE ACTIVITIES ARE PART IN THE OTHER ITERATIONS.**

**ALTHOUGH AGILE TEAMS DO TRY TO MINIMIZE RISK EARLY IN THE PROJECT, THEY USUALLY DO THIS BY PRIORITIZING RISK MITIGATION**

# AS THE SCRUMMASTER OF A TEAM DO YOU EXPECT THAT THE TEAM MEMBERS TO

A. COME TO YOU WHENEVER THEY MEET A PROBLEM

B. REPORT ALL THEIR PROBLEMS IN THE DAILY STAND UP MEETINGS

C. SOLVE MOST PROBLEMS COLLECTIVELY AS THE WORK PROCEED

D. FIGURE OUT THE BEST SOLUTION ON THEIR OWN

# (A) AS THE SCRUMMASTER OF A TEAM YOU EXPECT THAT THE TEAM MEMBERS TO

## SOLVE MOST PROBLEMS COLLECTIVELY AS THE WORK PROCEED

**AGILE MEMBERS ARE EXPECTED TO SOLVE TECHNICAL PROBLEMS COLLECTIVELY.**

**THEY DO NOT TRY TO FIGURE OUT SOLUTIONS ON THEIR OWN OR BRING THE PROBLEMS TO THE COACH SINCE THESE APPROACHES WOULDN'T DRAW UPON THE TEAM'S COLLECTIVE EXPERTISE AND DIFFERENT VIEWPOINTS**

# 10 DEFINITIONS TO BE INTROJECTED AS CONCEPTS

1. VALUE DRIVEN DELIVERY
2. DELIVERABLE
3. EMPIRICAL PROCESS CONTROL
4. PRODUCT OWNER,TEAM,SCRUM-MASTER
5. SPRINT
6. DESIGN THINKING
7. DONE
8. MINIMUM VIABLE PRODUCT
9. STAKEHOLDERS
10. WASTE

# DEFINITIONS TO BE INTROJECTED AS CONCEPTS

**VALUE DRIVEN DELIVERY**

Decide to prioritize

- value- adding activities
- risk-reducing actions

**DELIVERABLE**

Achievement of something as a result of a process

# DEFINITIONS TO BE INTROJECTED AS CONCEPTS

**EMPIRICAL PROCESS CONTROL**

Managing work based on observation and experimentation.

PRODUCT OWNER: responsible for the project's outcome in a Scrum team

TEAM: at least three categories of individuals: the product owner,the developers, the scrum master

SCRUM-MASTER:coach of the team in self-management and cross-functionality.

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# DEFINITIONS TO BE INTROJECTED AS CONCEPTS

**SPRINT**

Short, time-boxed time for a scrum team to complete a set amount of work.

**DESIGN THINKING**

Human-centered approach to creative problem solving that combines desirable and feasible products ...

# DEFINITIONS TO BE INTROJECTED AS CONCEPTS

**DONE**

An agreed set of items to be completed before a project can be considered finished

**MINIMUM VIABLE PRODUCT**

**Version of a product with enough features to be usable by early customers**

# DEFINITIONS TO BE INTROJECTED AS CONCEPTS

## STAKEHOLDERS

Person or organization with an interest in the decision-making of a project.

## WASTE

A bad use of something useful, such as time or money, when there is a limited amount of it

# THANKS

NEXT

LESSON 11: CONTINUOUS IMPROVEMENT and REVIEW
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