



2. Settings





Our objective:
Using own data, to help companies to
impact society and business

The group project is an opportunity for students to demonstrate not just their **technical skills** but also their ability in **presenting results** and propose **business recommendations**.



Homework 1. Your Group Project's team!

Group project (60%)

You will work in groups from three (3) up to five (5) to manage a project on the use of business data and analytics. The topic is left up to you so you can explore an industry, a problem, or a technology that interests you. Each group is required to prepare and deliver a 10-minute presentation in our last class and submit a 10-12 pages (single-spaced, 12-font) write-up. Please share the topic and an outline with me by January 26th, 2024.

Main elements in the group project

- Presentation: around 6 slides (10 minutes)
- Write-up: 10-12 pages (single-spaced, 12-font)
- Annex: code, data collection evidences

Evaluation criteria for the group project

- Relevance to the course's topics (10%)
- Data originality (30%)
- Technical development (30%)
- Presentation (10%)
- Written Report (20%)

Professional skills objectives

- **Prepare** your meetings, assistants will help, not guide you through.
- There will be **ambiguity**. Data, assignments, project scope, ... are subject to change.
- Embrace **criticism**, you learn from it.
- Be **honest**, explain things as they are.
- Be sure to make **appointments** with your assistants.
Do not assume people will always be available.



Forming the Teams

Once the project is accepted, teams are organized to work on different portions of the design and development.

- Teams adopt “work practices” including
 - Team communication via XXXX
 - Naming conventions for files
 - Configuration/Revision control system
 - Quality assurance and testing procedures

Possible roles in the team

- Project Manager
- Domain expert
- Information or software architect
- Creative designers (artwork)
- User interface designers
- Usability experts
- Software designers
- Programmers
- Testers
- Configuration manager
- Documentation writers

Iterations

1: Skeleton
(week 2)

- Data
- Libraries
- Problem

2: Starting
features
(week 3)

- Explore
- Visualize

3: Key
features
(week 4)

- Objective

4: Optimize
(week 5)

- No new code!
- Write

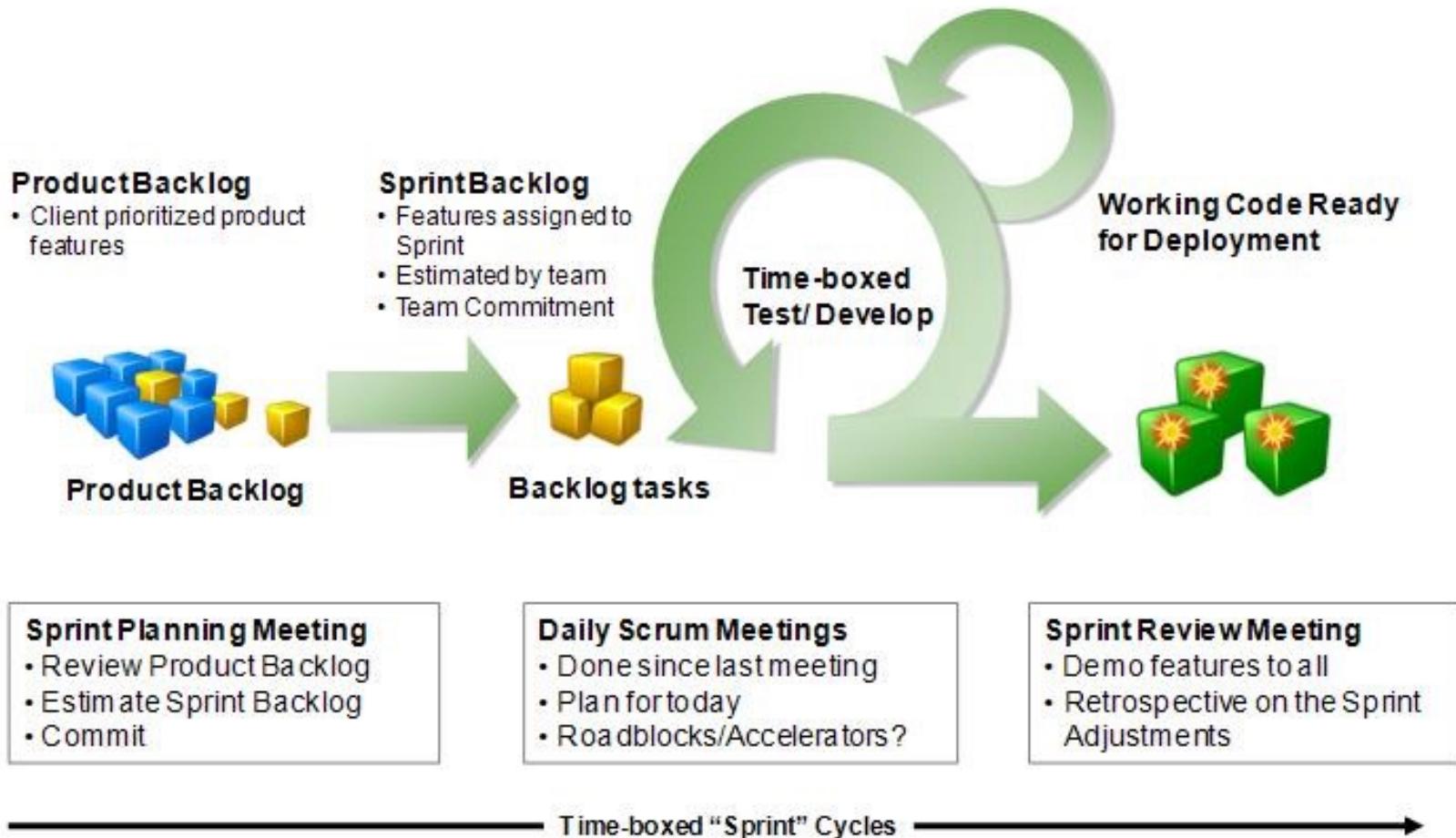


Your data will be made available to other groups after week 3.

There are many reasons for competitors to cooperate. At the simplest level, it can be a way to save costs and avoid duplication of effort.

<https://hbr.org/2021/01/the-rules-of-co-operation>

Project management: SCRUM



Project management artifacts



Roles and responsibilities

Roles and Responsibilities		
Project Leader	<name>	Responsible for meeting project milestones and deliverables and the quality actions
Project Consultant – domain expert	<name>	Consulting on technology and market positioning
Lead Software Development Manager	<name>	Manage entire software development and verification effort. Assign resources, contribute to overall direction and requirements and project management for software activities.
Usability Engineer	<name>	Expert in mobile usability; designs wireframes, navigation, layout, ...
Lead CMS Engineer	<name>	Content Management system specialist.
Web Developer	<name>	General web development. (HTML, CSS, Javascript)
Web Application Engineer	<name>	Responsible for the design and implementation of the mobile learning application
Test Engineer	<name>	Makes the test plan, executes tests and reports on quality
GUI Software Eng	<name>	Implements interaction screens

Decisions



ASSUME
I CAN!

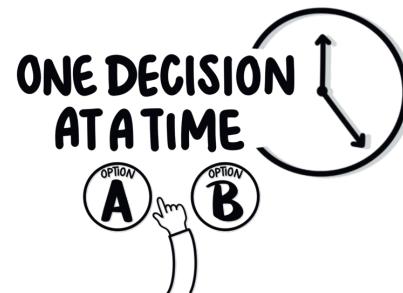


UNDERSTAND
ME AND MY
PREFERENCES

I CAN CHANGE
MY MIND



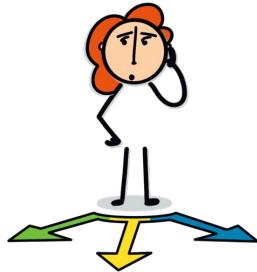
SUPPORTED
DECISION MAKING
PRINCIPLES



ARE THE RIGHT
PEOPLE INVOLVED?



EXPLORE
ALL OPTIONS



IT'S UP TO ME TO
MAKE DECISIONS
ABOUT MY LIFE



EXPERIENCE
TO EXPLORE



UNDERSTAND THE
RIGHT ASSISTANCE
FOR ME



Lists

- Rolling Action Item list

Action Items Template

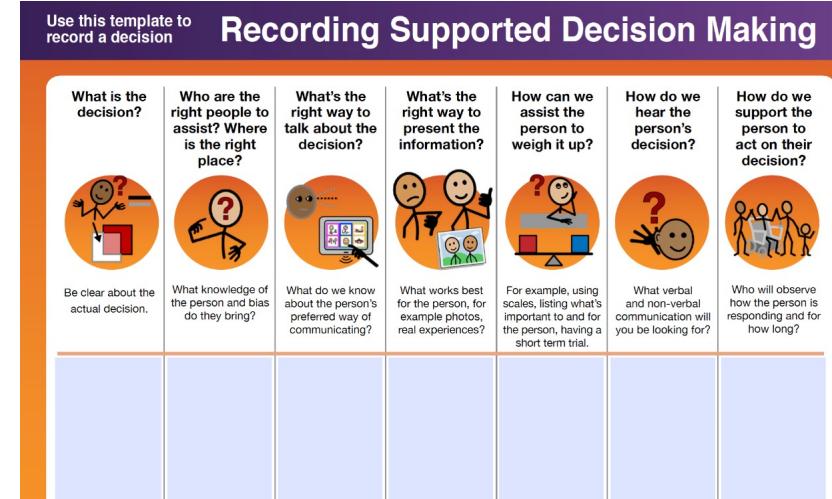
[View This Form](#)

Item No.	Description	Assigned To	Requested Date	Status
I-006	Replace the broken images in the homepage.		May 1, 2020	Not Started
I-004	Page loading gif design	Albert Morgans	Mar 23, 2020	Done
I-005	New product dashboard for performance...		Apr 21, 2020	In Progress
I-001	Check the duplicate problems of the cont...	Jane Thomas	Jan 30, 2020	Done
I-003	Visual designs for summer campaign page.	Max Henson	Mar 19, 2020	In Progress
I-002	Fix and test the color selection option be...	Arthur Brady	Feb 5, 2020	Done

- Key Decision log

Project Decision Log

Ref	Date	Description	Agreed by
1	01/08/2010	If user requirements are more than three months old they will not be used and they will be revisited.	Team
2	12/08/2010	Go/no go decision for software upgrade will be taken on 15/10/10	Project Manager
3	26/08/2010	No new servers will be purchased: software to be made to work on existing architecture	Technical Lead, Infrastructure Architect
4	02/09/2010	The project team general email inbox is not to be used for users - we will stop giving this address out to our wider business colleagues	Team



Project risk management and mitigation plan

Probability and Impact Matrix (Heat Map)

Probability	Threats Risk Score = Probability x Impact					Opportunities				
						High (RED) / Med (YEL)		Low (GRN)		
0.90 Very Likely	0.05	0.09	0.18	0.38	0.72	High	High	High	Med	Low
0.70 Likely	0.04	0.07	0.14	0.28	0.56	High	High	Med	Med	Low
0.50 Possible	0.03	0.05	0.10	0.12	0.40	High	High	Med	Low	Low
0.30 Unlikely	0.02	0.03	0.06	0.12	0.24	High	Med	Med	Low	Low
0.10 Very Unlikely	0.01	0.01	0.02	0.04	0.08	Med	Low	Low	Low	Low
	0.05	0.10	0.20	0.40	0.80	Very High	High	Med.	Low	Very Low
Example Impact Definitions – May Be Tailored to Each Project Objective Impact on an Objective (e.g. Cost, Schedule, Scope, Quality)										

<https://industrialaudit.com/risk-mitigation/>

Project risk management and mitigation plan

Risks and Mitigation Plan

Key Risks	Disruption	Impact	Probability	Mitigation plan
Data collection	H	L	M	Other sources
Libraries	L	L	L	Initial key decisions
Knowledge	M	M	M	Teamwork modifications
Infrastructure	L	L	L	Hardware diversity
Technology	M	M	L	Explore several possibilities
Business	M	L	H	Several KPIs definition

The first project review meeting – week 2

- Agenda:
 - Updated Dataset
 - Organisation
 - Roles & Responsibilities of each team member
 - Baseline Problem Definition: high level
 - Scope of work for the alfa release (week 3)
 - What you will do +
 - What you will NOT do !
 - Project Planning and Tools
 - Project Risks

Next project review meetings – weeks 3, 4

- Planning
 - Status of the last weeks
 - Next iteration
 - Demo software (scrum review style)
- Overview of lists
 - Action items
 - Risk list
 - Key decisions
 - (Changes) in role & responsibilities



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