

Uwe Gühl

IT Project Management Exercises

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Exercise 1. Project Presentation

Working document: [Project profile template](#)

1.1 Project Profile

Please name or define your own project that you want to work through during the seminar.
Please fill out the project questionnaire.

1.2 Project Contents

Present the key points of your project on a flipchart.

Project profile – *Example*

Project name	2 nd edition “Projektmanagement für die Praxis”	Project No.	SV_Bö_2.Aufl
Principal	Mr. xyz, Springer Vieweg, Wiesbaden		
Project manager	Daud Alam		
Version/Date	2.0/29.02.2020	Status	In progress

Steering committee	./.		
Project team	Uwe Gühl		
Stakeholder	Wife of Daud, wife of Uwe, reviewer, buyer, students		
Supplier	./.		
Project start	01.06.2019	Project end	20.04.2020
Objectives	Extension and revision of “Projektmanagement für die Praxis”		
Project scope	<ol style="list-style-type: none"> 1. Additional chapter: Agility 2. Additional section: Change management 3. All templates available electronically 4. Revision and more exercises with solutions 		
Milestones	Regular communication every 2 months with discussion of status and proceeding		
Terms of payment	Clarified in contract (annual paying) after sales year		

Stuttgart/Sindelfingen,
29.02.2020

xyz

Daud Alam

City, date

Principal

Project manager

Project profile

Project name		Project No.	
Principal			
Project manager			
Version/Date		Status	

Steering committee			
Project team			
Stakeholder			
Supplier			
Project start		Project end	
Objectives			
Project scope			
Milestones			
Terms of payment			

City, date

Principal

Project manager

Exercise 2. Situation Analysis

Working documents: [Situation analysis template](#)
[Situation analysis checklist](#)

2.1 Situation Analysis

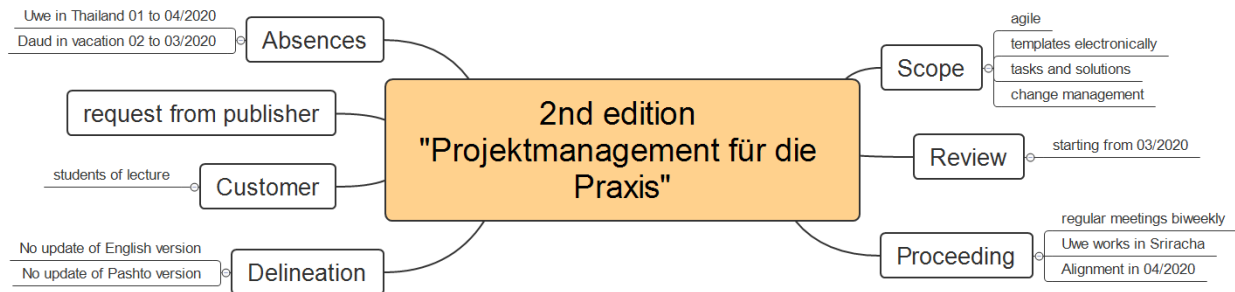
Please work out a situation analysis for your project!
Suggested method: Create a mind map.

2.2 Review of your Situation Analysis

Use the checklist to review whether you have taken all aspects into account and complete your result if necessary.

Situation analysis – *Example*

Project name	2 nd edition "Projektmanagement für die Praxis"	Project No.	SV_Bö_2.Aufl
Project manager	Daud Alam		
Version/Date	1.0/01.06.2019	Status	In progress



Situation analysis

Project name		Project No.	
Project manager			
Version/Date		Status	

Checklist situation analysis

Project name		Project No.	
Project manager			
Version/Date		Status	
Author			

Question	Result
1. Initial situation	
a. Is the initial situation described sufficiently?	
b. Are the challenges and issues of the current situation known?	
c. Are the persons involved concerning the current situation identified?	
2. Root cause analysis Has a root cause analysis been executed to identify the cause of the challenges and issues of the current situation?	
3. History	
a. What activities have been carried out in the past to solve the challenges and issues?	
b. Is documentation available and why have the activities not been successful?	
c. Are experiences known concerning similar challenges and issues?	
4. Interests / Cooperation	
a. Has an environment analysis been conducted?	
b. Who is interested in a solution of the challenges and issues? Which group, which project supervisor, which executive?	
c. Are there projects or departments, working on the same topics?	
d. Who has interests against a project, e.g. competing projects?	
5. Concerning a customer / contractor situation: Why did the customer not solve the challenges and issues by himself?	
6. Differentiation	
a. What activities are part of the project?	
b. What activities are not part of the project?	
c. Are there any constraints or decisions to be considered?	
7. Outlook	
a. Has a future analysis been performed for the project?	
b. Are project risks identified that could result in problems, issues and conflicts during the execution of the project?	
c. Is the impact of these risks determined?	
d. Concerning the risks and possible impact: Are best case and worst case scenarios defined including recommendations?	

Exercise 3. Environment Analysis

Working documents: [Environment analysis template](#)
[Environment analysis checklist](#)

3.1 Identifying and Analyzing the Environment

First identify the stakeholders (any natural person who is interested in the project) in the project environment.

Assign to each stakeholder:

- Possible role in the project
- Attitude towards the project
- Possible influence / power

Please use the environment analysis template.

3.2 Review of your Environment Analysis

Use the checklist to check whether you have taken all aspects into account and complete your result if necessary.

Environmental analysis– *Example*

Project name	2 nd edition “Projektmanagement für die Praxis”	Project No.	SV_Bö_2.Aufl
Responsible	Daud Alam		
Version/Date	1.0/31.10.2019	Status	In progress

Stakeholder	Possible role in project	Attitude concerning project	Possible influence/power	Measures/strategies
Daud	Author	Very positive	High	Meeting often, regular motivation
Uwe	Author	Very positive	High	Meeting often, regular motivation
Mr. xyz	Editor	Positive	High	Regular communication every 2 months, regular updates per mail
Prof. CK	Reviewer	Neutral	High	Sending request for review

Environmental analysis

Project name		Project No.	
Responsible			
Version/Date		Status	

Stakeholder	Possible role in project	Attitude concerning project	Possible influence/power	Measures/strategies

Checklist environmental analysis

Project name		Project No.	
Project manager			
Version/Date		Status	
Author			

Question	Result
1. Identification of persons / group of persons: Who is confronted with the project?	
a. Who is somehow involved in the project?	
b. Who could deliver information for the project, what sources of information are available?	
c. Are there overarching goals and visions the project should service?	
d. Are there projects under way with similar problems? Who are the contact persons?	
e. Are there other projects, requiring the same resources?	
f. What systems and processes are involved?	
g. Political situation: Are there sponsors, competitors?	
h. Who is affected by the project, who benefits, who has disadvantages?	
i. Who could influence the success of the project in a positive or negative manner?	
2. What attitude towards the project do the identified people / group of people have?	
3. How powerful are the identified people / group of people?	
4. How to deal with the identified people / group of people? How intensely should they be included into the project?	

Exercise 4. Project Order

Working document: [Project order template](#)

4.1 Creating a Project Order

Please create a draft project order for your project.

Project order – *Example*

Project name	2 nd edition “Projektmanagement für die Praxis”	Project No.	SV_Bö_2.Aufl
Principal	Mr. xyz, Springer Vieweg, Wiesbaden		
Project manager	Daud Alam		
Version/Date	1.0/31.10.2019	Status	In progress

Steering committee	./.		
Project team	Uwe Gühl		
Project start	01.06.2019	Project end	30.04.2020
Objectives	Extension and revision of “Projektmanagement für die Praxis”		
Non-goals	The English edition will not be updated		
Project scope	<ol style="list-style-type: none"> 1. Additional chapter: Agility 2. Additional section: Change management 3. All templates available electronically 4. Revision and more exercises with solutions 		
Milestones	Regular communication every 2 months with discussion of status and proceeding.		
Contract value	1.000 Euro		

Stuttgart/Sindelfingen,
31.10.2019

xyz

Daud Alam *Uwe Gühl*

City, date

Principal

Project manager

Project order

Project name		Project No.	
Principal			
Project manager			
Version/Date		Status	

Steering committee			
Project team			
Project start		Project end	
Objectives			
Non-goals			
Project scope			
Milestones			
Contract value			

City, date

Principal

Project manager

Exercise 5. Requirements

Working document: [Requirements list template](#)

5.1 Collecting Requirements

Collect at least 5 requirements for your project.

5.2 Quantifying Requirements

Quantify the complexity and priority of the identified requirements.

5.3 Assign Requirements

Assign for each identified requirement:

- Responsible
Who is responsible for the request?
- Until
By when is the requirement to be implemented?
- Status
What is the processing status of the request?
- Activities
Which activities are planned, in progress or already completed?

Requirements list – *Example*

Project name	2 nd edition “Projektmanagement für die Praxis”	Project No.	SV_Bö_2.Aufl
Responsible	Daud Alam		
Version / Date	1.0/31.10.2019		

No.	Requirement	Stakeholder	Complexity	Priority	Status	Comments
1	Additional chapter: Agility	Xyz	High	High	Planned	
2	Additional section: Change management	Xyz	Medium	Medium	In progress	
3	All templates available electronically	Xyz	Low	Medium	Done	

Requirements list

Project name		Project No.	
Responsible			
Version / Date			

No.	Requirement	Stakeholder	Com-plexity	Priority	Status	Comments

Exercise 6. Risk Management

Working document: [Risk list template](#)

6.1 Risk Identification

Collect at least 3 risks for your project.

Involve people who know your project to identify risks.

6.2 Risk Evaluation

Assign to each identified risk:

- probability of occurrence
- estimated impact on the project if the risk occurs

Abbr.	Explanation	Values
Id	Identity	
Quantification:		
P	Probability of incidence	1 = low 2 = medium 3 = high
I	Estimated impact	1 = less critical 2 = critical 3 = very critical
Risk	= Probability of incidence *	1 or 2 = low risk
	Estimated impact	3 or 4 = medium risk
		6 or 9 = high risk

6.3 Risk Mitigation

For each risk, define measures to

- reduce the probability of occurrence
- limit the impact on the project if the risk occurs

Risk list – *Example*

Project name	2 nd edition “ <i>Projektmanagement für die Praxis</i> ”	Project No.	SV_Bö_2.Aufl
Project manager	Daud Alam		
Version/Date	1.0/31.10.2019	Status	<i>In progress</i>

[illegible]

Risk list

Project name		Project No.	
Project manager			
Version/Date		Status	

[illegible]

Exercise 7. Work Breakdown Structure

Working document: [Work breakdown structure template](#)

7.1 Preparing a Work Breakdown Structure (WBS)

Please work out a work breakdown structure for your project.

Work breakdown structure (WBS) – *Example*

Project name	2 nd edition “Projektmanagement für die Praxis”	Project No.	SV_Bö_2.Aufl
Project manager	Daud Alam		
Version/Date	2.0/29.02.2020		

WBS No.	Subproject/ Work package	Responsible	Plan		Actual	
			Amount of work	Duration	Amount of work	Duration
1	Adding contents	Uwe				
1.1	Adding chapter: Agile management	Uwe	5 d	6 w		
1.2	Adding section: Change management	Daud	2 d	2 w	2 d	2 w
2	Prepare all templates to share them electronically	Uwe	4 d	8 w	6 d	12 w
3	Add problems and solutions for students	Daud	6 d	3 w		
4	Check and update links of references	Uwe	1 d	1 d	5 d	12 w
5	Organize review	Uwe	4 d	4 w		
6	Finalization	Daud	4 d	2 w		

Work breakdown structure (WBS)

Project name		Project No.	
Project manager			
Version/Date			

[illegible]

Exercise 8. Work Package

Working documents: [Work package template](#)
[Work breakdown structure template from Exercise 7](#)

8.1 Preparing a Work Package

Please determine a work package from the work breakdown structure (WBS) you have already created and work it out!

Work package (WP) – *Example*

Project name	2 nd edition “ <i>Projektmanagement für die Praxis</i> ”	Project No.	SV_Bö_2.Aufl
WP name	Check and update links of references	WP Id	4
WP owner	Uwe		
WP approval	Daud		
Version/Date	2.0/29.02.2020		

Progress control	Plan		Actual	
	Amount of work	Duration	Amount of work	Duration
	1 d	1 d	5 d	12 w
	Start	End	Start	End
	01.01.2020	01.01.2020	01.01.2020	
Comments	Work is still ongoing, should be finished end of March 2020			

Objective	All links in the book in the references are checked and updated in case
Preconditions (Input)	All references are complete, no reference is missing.
Scope	<p>Create a temporary lit.bib, replace _ by _</p> <p>Load temporary lit.bib to JabRef</p> <p>In JabRef export data as html</p> <p>Call evaluation program</p> <p>For all wrong links: Check link, try to find a correct one. In case: update text in book</p> <p>Update check date</p>
Results (Output)	All links in the book are correct

Work package (WP)

Project name		Project No.	
WP name		WP Id	
WP owner			
WP approval			
Version/Date			

Progress control	Plan		Actual	
	Amount of work	Duration	Amount of work	Duration
	Start	End	Start	End
Comments				

Objective	
Preconditions (Input)	
Scope	
Results (Output)	

Exercise 9. Time Schedule

Working documents: [ProjectLibre \(Open source\)](#)
[Alternatives are MS Project, Excel](#)

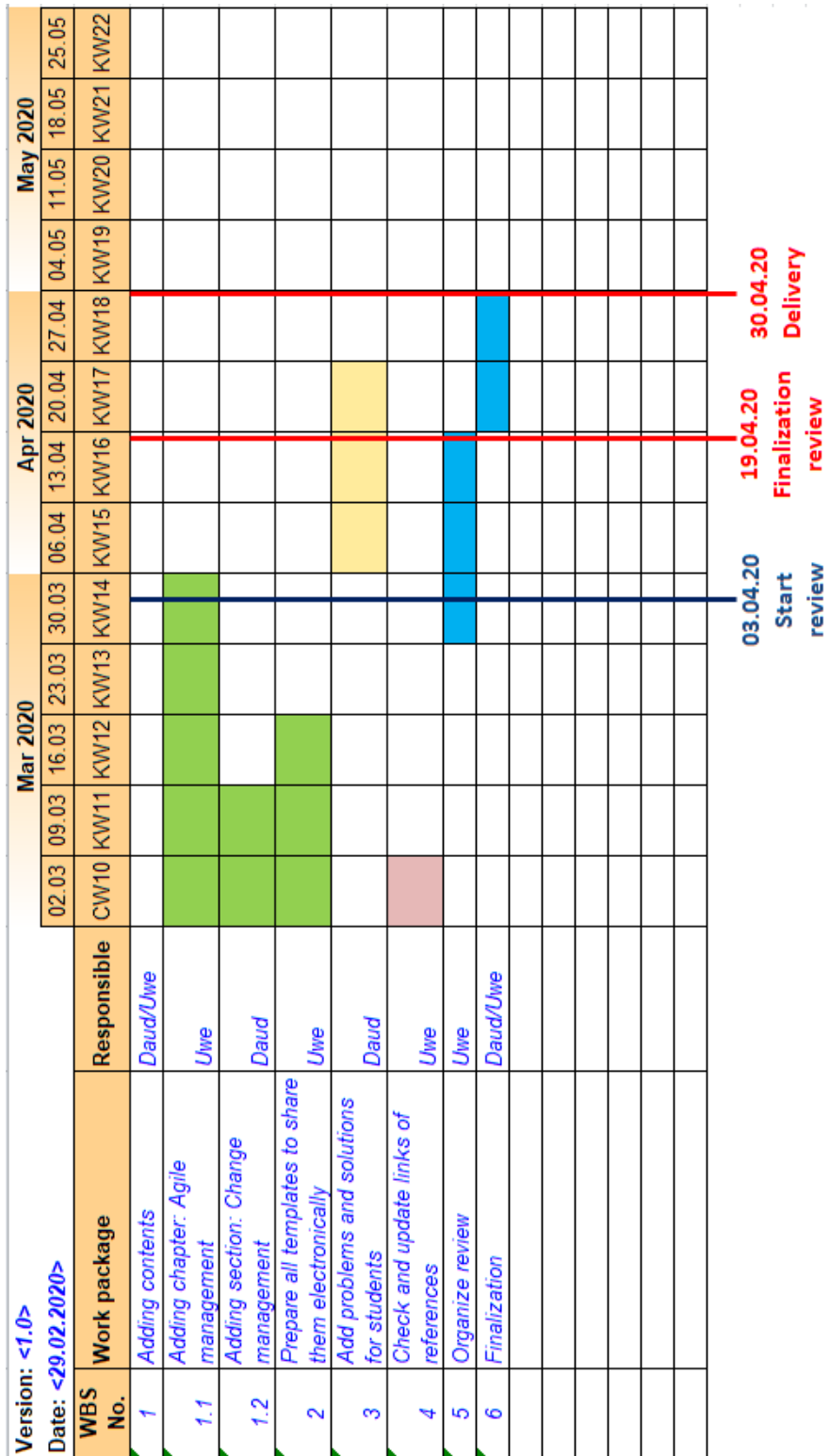
[Work breakdown structure \(WBS\) from Exercise 7](#)

9.1 Preparing a Time Schedule

Put the work packages from the work breakdown structure (WBS) you have already created into a chronological order and display them in a time schedule.

Time schedule – *Example*

Project name	2 nd edition “ <i>Projektmanagement für die Praxis</i> ”	Project No.	SV_Bö_2.Aufl
Project manager	Daud Alam		
Version/Date	2.0/29.02.2020		



Time schedule

Project name		Project No.	
Project manager			
Version/Date			

[illegible]

Exercise 10. Milestone Plan

Working documents: [ProjectLibre \(Open source\)](#)
Alternatives are MS Project, Excel

[Work breakdown structure \(WBS\) from Exercise 7](#)
[Time schedule from Exercise 9](#)

10.1 Development of a Milestone Plan

Based on the created time schedule, please create a milestone plan.

For this purpose, please synchronize the dates so that they are aligned with important events.

Adjust your schedule if necessary.

Milestone plan – *Example*

Project name	2 nd edition “ <i>Projektmanagement für die Praxis</i> ”	Project No.	SV_Bö_2.Aufl
Project manager	Daud Alam		
Version/Date	2.0/29.02.2020		
Author	Uwe		

No.	Plan date	Actual date	Milestone	Id	Criterion	Result
1	03.04.2020		Start review	1.1	Document is ready for review	
				1.2	All reviewers informed	
2	19.04.2020		Finalization review	2.1	All reviewers answered	
3	30.04.2020		Delivery	3.1	Document is finished	
				3.2	All review findings processed	
				3.3	Document sent to Springer	

Milestone plan

Project name		Project No.	
Project manager			
Version/Date			
Author			

No.	Plan date	Actual date	Milestone	Id	Criterion	Result

Exercise 11. Resource Plan/Cost Schedule

Working documents: [ProjectLibre \(Open source\)](#)
Alternatives are MS Project, Excel

[Work breakdown structure \(WBS\) from Exercise 7](#)

11.1 Development of a Resource Plan/Cost Schedule

Based on the created work breakdown structure please create a resource plan/cost schedule.

Resource plan/Cost schedule – *Example*

Project name	2 nd edition “Projektmanagement für die Praxis”	Project No.	SV_Bö_2.Aufl
Project manager	Daud Alam		
Version/Date	2.0/29.02.2020		

Personnel costs			Plan			Actual		
WBS No.	Working package / Name	Int. / ext.	Hours	Rate	Costs	Hours	Rate	Costs
1	Adding contents	Int	56	10 €	560 €			
2	Prepare all templates to share them electronically	Int	32	10 €	320 €	48	10 €	480 €
3	Add problems and solutions for students	Int	48	10 €	480 €			
4	Check and update links of references	Int	8	10 €	80 €	40	10 €	400 €
5	Organize review	ext	32	15 €	480 €			
6	Finalization	int	32	10 €	320 €			
Sub-total personal costs					2,240 €			880 €

Material costs			Plan			Actual		
WBS No.	Working package / Name	Item	Quantity	Price	Costs	Quantity	Price	Costs
1	Adding contents	Food	20	12 €	240 €			
6	Finalization	Printout	2	20 €	40 €			
Sub-total material costs					280 €			0 €
Total					2,520 €			880 €

Resource plan/Cost schedule

Project name		Project No.	
Responsible			
Version / Date			

Personnel costs			Plan			Actual		
WBS No.	Working package / Name	Int. / ext.	Hours	Rate	Costs	Hours	Rate	Costs
Sub-total personal costs					0			0

Material costs			Plan			Actual		
WBS No.	Working package / Name	Item	Quantity	Price	Costs	Quantity	Price	Costs
Sub-total material costs					0			0
Total					0			0

Exercise 12. Project Organization

Working documents: LibreOffice Draw (open source)
 XMind 8 (freeware)
 Alternatives are MS Powerpoint, MS Word (Orgchart)

12.1 Choice of Project Organization

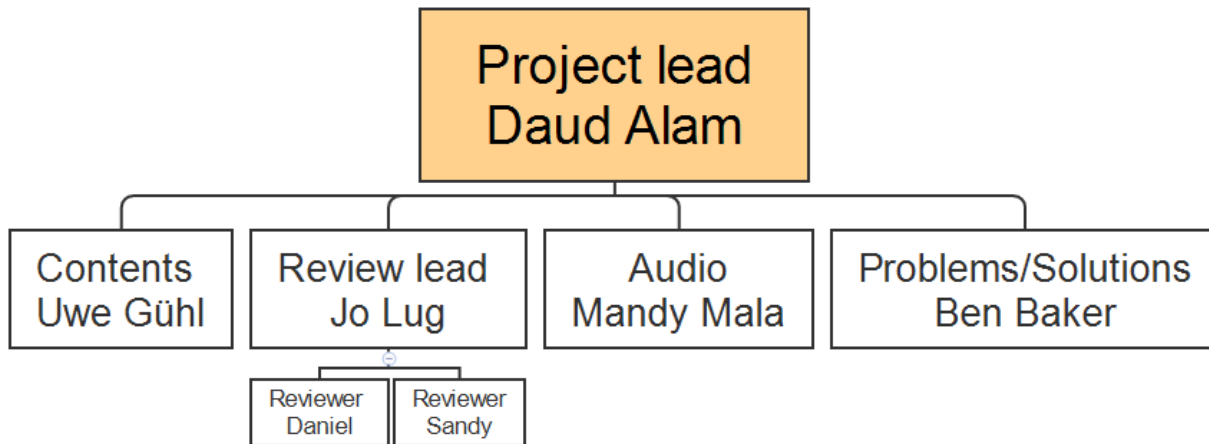
Discuss which project organization makes the most sense for your project and justify your result:

12.2 Presenting the Project Organization

After choosing the project organization for your project, please describe how the project organization should look like in concrete terms, for example with an organization chart.

Project organization – *Example*

Project name	2 nd edition “ <i>Projektmanagement für die Praxis</i> ”	Project No.	SV_Bö_2.Aufl
Project manager	Daud Alam		
Version/Date	2.0/29.02.2020		



Project organization

Project name		Project No.	
Project manager			
Version/Date			



Exercise 13. Communication Plan

Working documents: [Communication plan template](#)

[Environmental analysis from Exercise 3](#)
[Project organization from Exercise 12](#)

13.1 Creating a Communication Plan

Please create a communication plan for your project.

Communication plan – *Example*

Project name	2 nd edition "Projektmanagement für die Praxis"	Project No.	SV_Bö_2.Aufl
Project manager	Daud Alam		
Version/Date	2.0/29.02.2020		
Author	Uwe		

Kind of communication	Who/ With whom	Purpose	Frequency	Comment
Phone/Skype	Principal	Information, agreements	bimonthly	
Individual	Project team	Exchange, teamwork	biweekly	Office of Daud
Mail/Phone	Reviewer	Alignment	individual	Sending documents, receiving review findings, clarification in case

Communication plan

Project name		Project No.	
Project manager			
Version/Date			
Author			

Kind of communication	Who/ With whom	Purpose	Frequency	Comment

Exercise 14. Project Kickoff

Working documents: Work breakdown structure (WBS) from Exercise 7
 Time schedule from Exercise 9
 Milestone plan from Exercise 10
 Resource plan/cost schedule from Exercise 11
 Project organization from Exercise 12

14.1 Contents of the Project Kickoff

Which essential points should be considered in the project kickoff?

Proposal for solution:

- *Communicating the project goal*
- *Information about the project plan*
- *Motivation of the project team*
 - *Highlight the importance of the project*
 - *Presence/presentation of the client/project sponsor/decision maker*
- *A moderator is recommended*
- *A minute taker in should be determined in advance.*
- *The minutes are considered an important document for later agreements.*

14.2 Planning the Project Kickoff

Please plan the kickoff for your project.

Create a list of participants and the agenda of the project kickoff.

Exercise 15. Milestone Report

Working documents: [Milestone report template](#)

[Milestone plan from Exercise 10](#)

15.1 Development of a Milestone Report

Based on the created milestone plan, please create a report for a specific milestone.

For this purpose, please go through the individual criteria and fill in examples of possible results.

15.2 Completion of a Milestone

Based on the results of the criteria please decide if the milestone is completed.

- Completed
- Partially completed – what is left to do?
- Not completed – what has to be done?

Milestone report – *Example*

Project name	2 nd edition "Projektmanagement für die Praxis"	Project No.	SV_Bö_2.Aufl
Project manager	Daud Alam		
Version/Date	3.0/03.04.2020		
Author	Uwe		
Milestone	1 Start review	Status	In progress

Exit criteria				Result		
No .	Criterion	Responsible	Accepted by	Description	Status	Measures/Comments
1.1	Document is ready for review	Uwe	Daud	Version 0.9	Done	
1.2	All reviewers informed	Uwe	Daud	Mail sent to CK, DM, SA	In progress	DM, SA confirmed, reminder sent to CK

Milestone report

Project name		Project No.	
Project manager			
Version/Date			
Author			
Milestone		Status	

Exit criteria				Result		
No .	Criterion	Responsible	Accepted by	Description	Status	Measures/Comments

Exercise 16. Meetings – Minutes

16.1 Project Meetings

What are indicators for successful meetings in a project?

Proposal for solution:

- *Preparation by inviting person*
 - *Creating the agenda with meeting points and scheduled time*
 - *Aligning the agenda with important stakeholders (principal, sponsors)*
 - *Preparation of working documents for the meeting*
 - *Ensuring that the right group of participants participates*
 - *Are all necessary persons available?*
 - *Are there participants who should not participate?*
 - *Invite / appoint a moderator*
This depends on the size of the session, the meeting points and the possible conflict potential
 - *Providing resources*
 - *Room is booked and sufficient (right size, chairs, tables)*
 - *Work equipment is available (flipchart, flipchart paper, pens, beamer, ...)*
 - *Sending out invitations, having participation confirmed*
- *During the meeting*
 - *Present the agenda, request for confirmation*
 - *Determination of a keeper of the minutes (maybe in advance), if necessary online / record during the meeting*
 - *Completed tasks should be accepted by the person who set the task*
 - *If there are longer discussions, try to formulate and delegate tasks - example: working out a proposed solution outside the meeting*
 - *Collect tasks, at the end determine responsible persons and completion date*
 - *Formulate decisions correctly (closed question - yes / no) and bring about*

16.2 Minutes

Please describe what minutes of project meetings should contain.

Proposal for solution:

- *Administrative information:*
 - *Who participated where and when?*
 - *In case: Who will be informed about the meeting?*
 - *What was the topic?*
 - *Who took the minutes?*
 - *Who approved the minutes, if applicable?*
- *Tasks with responsibilities and completion date*
- *Decisions in exact wording*
- *Information*

Exercise 17. Project Closure

17.1 Closure Phase

What should be considered and done in the closure phase?

Proposal for solution:

- *Finalizing the work*
- *Handover of the project results to the principal*
- *Organizing the approval of the project*
- *Securing results*

17.2 Goals of the Closure Phase

What are the objectives of the closure phase?

Proposal for solution:

- *Delivery of project result like a product or service with corresponding documentation*
- *Approval*
 - *Relief of the project, relief of the project manager*
- *Handover of the project*
 - *to operation with integration, adjustments, instruction*
 - *to line organization*
- *Final documentation*
 - *Final report*
 - *Final lessons learned/project closure workshop*
 - *Storage of the final documentation in a company knowledge base*
- *Dissolution of the project team*