

Experiment Number: 3

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Title: To develop the Project Charter for the mini project Water Pipe leakage detection system.

Pre requisites: MOV, Business Case

Learning Objectives (Bloom's Taxonomy): Create

Theory:

Developing the Project Charter is the process of developing a document that formally authorizes the existence of a project and provides the project manager with the authority to apply organizational resources to project activities. Together with the baseline project plan, provides a tactical plan for carrying out the project.

- Serves as an agreement or contract between the project sponsor and team.

Provides a framework for project governance.

- PC & PP should be made together-PM's duty to ensure.
- PP to be summarized in PC
- Infrastructure in PC tends to influence estimates used in developing PP



Fig 1.PMBOK Process Integration Management

- **Documents the project's MOV**-MOV to be cast in stone before planning starts ; should not change; MOV drives the Project Planning process
- **Defines the project infrastructure**- Defines all the people , resources, technology, methods, project management processes & knowledge areas that support the project. Knowing this helps in time estimation; but be careful if estimating time on the skill level of the best people
- **Summarizes the details of the project plan**- should summarize the objectives, deliverables & milestones; acts as a communication tool to be referred to, throughout the PLC
- **Defines roles & responsibilities**- Identify project sponsor, manager, team; when and how they will be involved throughout the project life cycle; specify lines of reporting & who will be responsible for specific decisions
- **Shows explicit commitment to the project**- should detail the resources to be provided by the sponsor; clearly specify who will take ownership of the product once the project is completed; approval of PC will give formal authority to project team to start the project work.

- **Sets out project control mechanisms-** Need to manage changes to the project's scope, schedule & budget which will undoubtedly happen over the course of the project else PM will lose control & PT focus; should outline a process for requesting & responding to proposed changes.

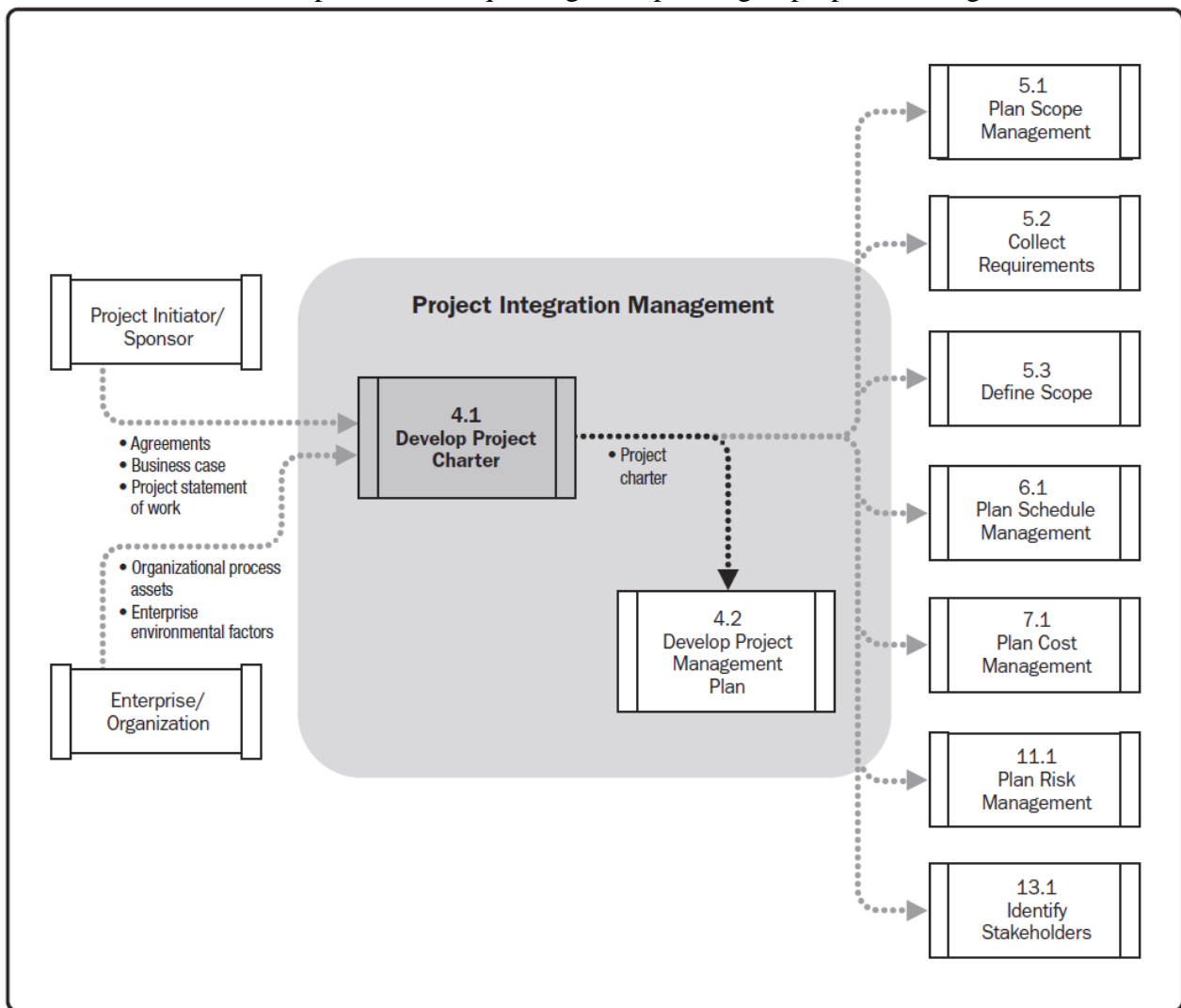


Fig 2.Relationship with other processes

Hardware & Software requirements:

Hardware: Computer system in a lab, Internet connection for literature survey

Software: Microsoft Office or Libre Office for preparing document

Procedure:

1. Formulate the Project Charter according to the steps outlined in Fig. 1
2. Use the template shown in Fig. 3.

Project Name or Identification

Project Stakeholders

- Names
- Titles or roles
- Phone numbers
- E-mail addresses

Project Description

- Background
- Description of the challenge or opportunity
- Overview of the desired impact

Measurable Organizational Value (MOV)

- Statement or table format

Project Scope

- What will be included in the scope of this project
- What will be considered outside the scope of this project

Project Schedule Summary

- Project start date
- Project end date
- Timeline of project phases and milestones
- Project reviews and review dates

Project Budget Summary

- Total project budget
- Budget broken down by phase

Quality Issues

- Specific quality requirements

Resources Required

- People

- Technology

- Facilities

- Other

- Resources to be provided

- Resource

- Name of resource provider

- Date to be provided

Assumptions and Risks

- Assumptions used to develop estimates

- Key risks, probability of occurrence, and impact

- Constraints

- Dependencies on other projects or areas within or outside the organization

- Assessment project's impact on the organization

- Outstanding issues

Project Administration

- Communications plan

- Scope management plan

- Quality management plan

- Change management plan

- Human resources plan

- Implementation and project closure plan

Acceptance and Approval

- Names, signatures, and dates for approval

References

Terminology or Glossary

Appendices (as required)

Fig 3. Project Charter Template

PROJECT CHARTER

Project Name: Water Pipe Leakage Detection System

Project StakeHolders :

Name	Title	Email
Leeaa Nair	Team Member	leeaanair@gmail.com
Nishant Nimbalkar	Team Member	nimbalkarnishant98@gmail.com
Sarah Solkar	Team Member	sarahsolkar123@gmail.com
Vijaya Bharthi	Project Sponsor	

EXECUTIVE SUMMARY:

Since its establishment, the team has been undertaking simple and similar projects. This enabled the team to settle into the work conditions and establish an organizational bond, but now it's high time that we take challenging and real-time projects and uplift the standards of the organization. Water pipe leakage detection system is thus a good project to start with, due to its challenging and varied problem statement and the underlying social and environmental cause.

PROJECT DESCRIPTION:

Background:

Water pipe leakage detection is to be created to help the users in reducing wastage of water due to leakage and thus helping in environmental conservation. It promotes the concepts of sustainability and water conservation and makes human life convenient.

MEASURABLE ORGANISATIONAL VALUE:

a. Identify the desired area of impact.

1.	Social	The system provides a way to help people in reducing wastage of water. Thus it has a positive impact socially due to its contribution to environmental conservation.
2.	Customer	The users get real time alert of leakage on email.

b. Identify the desired value of the IT project.

1.	Faster	Leakage alert is sent spontaneous to the users and the supply valve is stopped.
2.	Better	Easy visualization of data by graphs.
3.	Easy	Easy installation on the pipes.

c. Develop an appropriate metric.

1.	Faster	Takes 3 second for execution and displaying output.
2.	Cheaper	The total cost is around ₹1500 which is cheaper than its existing counterparts.

d. Set a time frame for achieving the MOV.

1.	Better	Approximately 2 weeks required for implementation of basic functionality, specification and interfaces.
3.	Do more	Approximately 1 week required for other enhancements and improvisation.

e. Summary

This project will be successful if all the observable goals are achieved within the time frame and delivered successfully to the user with a high customer satisfaction and usability to flourish good market reputation and demand for the organization.

PROJECT SCOPE:

The project will provide an improved and real time system for detecting and controlling wastage of water. The new system will require less support costs.

List of Deliverables:

Deliverable	Structure
Business Case	Document
Project charter & project plan	Document
Technology & Organizational assessment	Document
Requirements definition	Document
User Interface	Prototype
Physical & technical design	Document
Application system	Files
Testing plan	Document
Testing results	Document
Training program	User documentation and training class
Final report and presentation	Document
Project evaluations & lesson learned	Document

PROJECT SCHEDULE SUMMARY:

Activity	Time Duration
Project planning	1 week
Requirement Analysis	1 week

Design	2 weeks
Coding	1 week
Testing	1 week
Project Closure	1 week
Project Evaluation	1 week

PROJECT BUDGET SUMMARY:

Factors	Cost
Computers	75,000
Labour charge	75,000
Wifi	10,000
Infrastructure	20,000
Rents	7,500
Electricity	30,000
Resources	1,00,000
TOTAL	3,17,500

ASSUMPTIONS, CONSTRAINTS AND RISKS:

Assumptions:

- All the software applications needed will be compatible with the hardware required.
- Sufficient internal staff resources can be made available to the project team.
- Facilities and workstations will be made temporarily available for the project team.
- The project can be implemented within the cost budget.

Constraints:

- The cost budget cannot be exceeded.
- Deadline cannot be exceeded.

Risks:

- Budget underestimation: The project budget if underestimated may lead to the incomplete project life cycle or may lead to compromise in the product quality and scope
- Technology change: Any change in technology also poses a threat to the development of the project as it will lead to redo and significant slippage in schedule and budget.

ACCEPTANCE AND APPROVAL:

Success of the project will be achieved when a fully developed IOT product and all technical documentation, is fully deployed within the time and cost constraints indicated in this charter. Success will be determined by the Project Sponsor, Ms. Vijaya Bharathi, who will also authorize completion of the project.

AUTHORIZATION

Approved by the project sponsor: _____ Date: _____

Ms. Vijaya Bharathi

Conclusion: The Project Charter was developed for Water pipe leakage detection.

References: “Information Technology Project Management”, Jack T. Marchewka, 4th edition, Wiley India, 2009.