

Project Management Foundations

A what is a project

- ↳ A temporary endeavor that has a specific and unique goal, and usually a budget
 - ↳ temporary endeavor: definite begin & end

A what is project management

- ↳ what problem are you solving?
- ↳ How are you going to solve that problem?
- ↳ what's your plan?
- ↳ How will you know when you're done?
- ↳ How will did the project go?

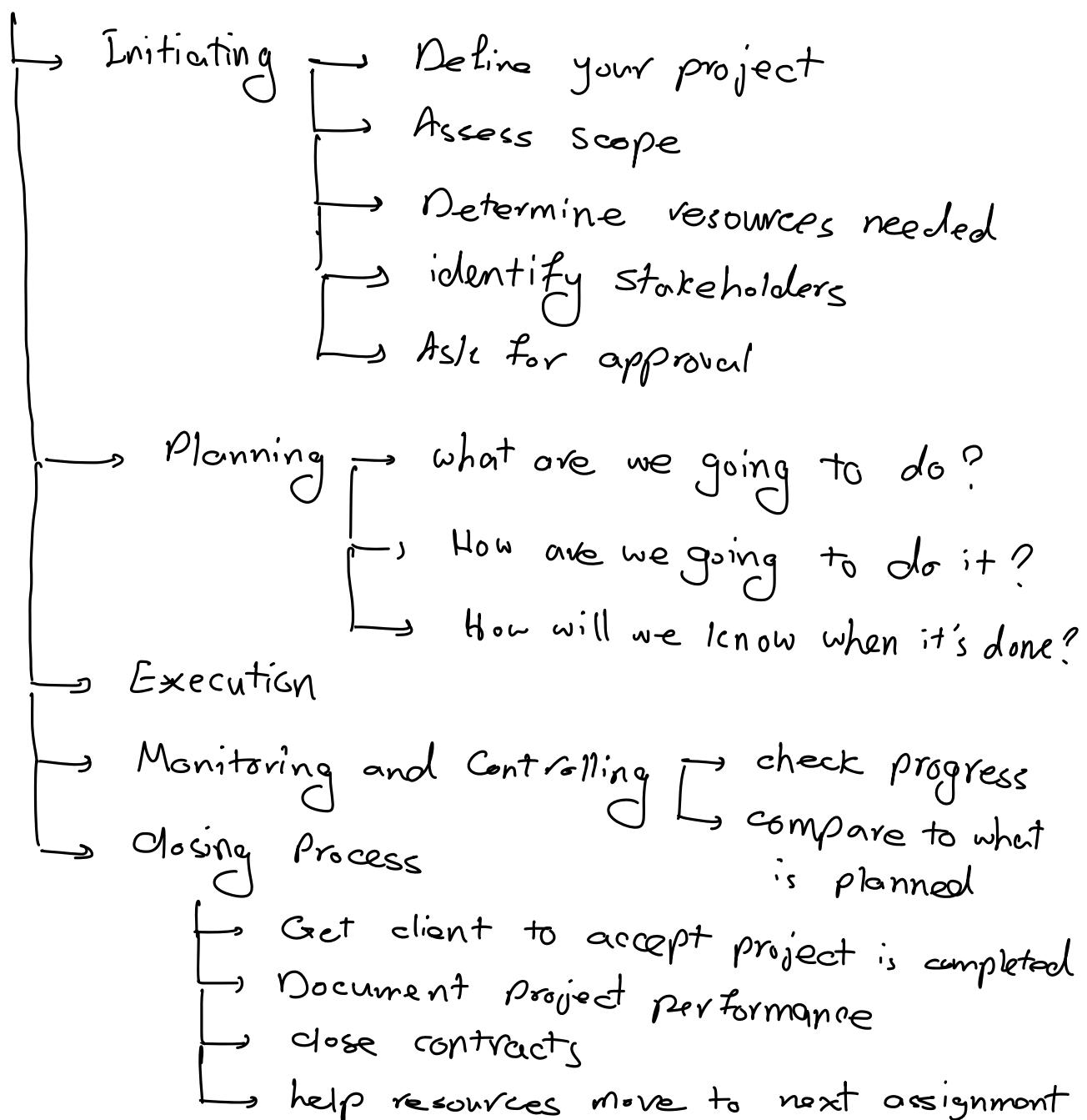
A Success criteria

- ↳ quantifiable, measurable results that show that the project is complete

△ Project Management skills

- Technical
- Business expertise
- Problem-solving
- Interpersonal
- Leadership

△ Project Management Process Groups



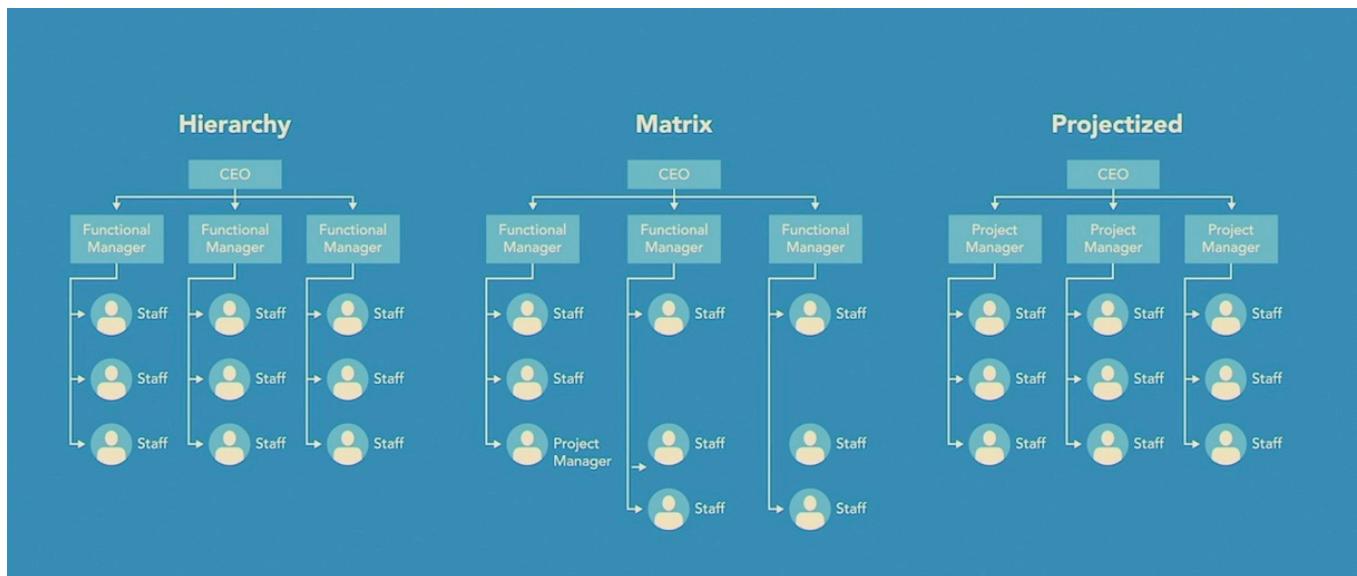
A Waterfall - Traditional Approach

- works well when goals are clearly defined
- Simplicity
- Low Risk
- Familiar Technology
- Experienced resources

A Agile Approach

- Iterations produce deliverables at regular intervals
- Value delivered sooner
- More customer involvement
- Small independent teams

A Organizational Structures



△ Hierarchy

- PM has almost no authority
- Functional manager in charge of budget
- Resources do not report to PM
- PM has divided responsibilities

△ Matrix

- PM has some authority
- Resources report to two managers : FM & PM
- PM and staff work full time in a strong matrix

△ Projectized

- PM has almost complete authority
- Resources are dedicated to project
- PM and edmis staff work full time

△ Project Management Software options

- scheduling
- work processing
- spreadsheet
- Presentation
- collaboration

A Initiate a project steps

- design a PM
- prepare project charter

A Stakeholders

- Customer
- Project sponsors
- Department
- Team Members

A Project customer

- has problem to solve
- funds the project
- informs what needs to be done
- approves deliverables

A Project sponsor

- wants project to succeed
- prioritize objectives
- talk to stakeholders
- suggest improvements

A Functional Managers

- ↳ achieve department goals
- ↳ Manage Team Members

A Stakeholder Analysis Document

Stakeholder Analysis							
Name	Department / Company	Position	Advisors	Objectives, Requirements, Interests	Influence	Project Contribution	Resistance
Dr. Carla Olsen	Management	COO	CEO, Patient Services, Physician Services	increase productivity, increase quality of care, increase medical results	High	funds project, provides information, approves deliverables	concerned about budget and schedule
Dr. Ella Johnson	Management	CEO	VP General Services, Controller	increase productivity, increase revenue and quality of care	High	provides support and contingency funds	concerned about budget
Nicholas Anderson	Management	VP General Services	Controller, VP Continuing Care	increase productivity, increase services offered	Medium	provides information, approves deliverables	concerned about disruptions during project
Maria Diaz	Management	Controller	Accounting, Procurement	increase productivity, increase profit	Medium	approves expenditures	concerned about budget
Stefan Leon	Financial	Procurement	Controller	lead time for procurement process	Medium	supports work, processes procurement requests	
Human Resources Dept.	HR		Resident Life Director	increase productivity, increase quality of care, increase medical results	Medium	provides information, supports work	concerned about process changes
Continuing Care Dept.	CC		Resident Life Director	increase productivity	Low	provides information, supports work	concerned about process changes
Resident Life Dept.	RL		VP General Services	increase quality of care	Low	provides information, supports work	concerned about process changes

A Project Goal

- ↳ Defines the end result
- solves the problem
- takes advantage of opportunity
- ↳ should be simple and easy to understand

A Objectives should be SMART

→ specific

→ measurable

→ achievable

→ realistic

→ time-related

⚠ Questions to ask when choosing a strategy

- Is the strategy feasible ?
- Are the risks acceptable ?
- Does strategy fit culture ?

⚠ Requirement challenges

- incorrect requirements
- inconsistent requirements
- missing requirements
- unnecessary requirements
- Customers don't commit time

⚠ Techniques to gather requirements



⚠ Deliverables are measured by success criterion

⚠ Deliverables

- Define scope
- measure progress

⚠ Assumptions

- Use to fill missing information
- Revisit & modify as necessary

⚠ Project charter

- project name
- purpose
- high level project description
- high level milestone schedule
- rough cost estimate
- stakeholders
- PM's name, responsibilities & authority
- formal declaration of sponsor's support

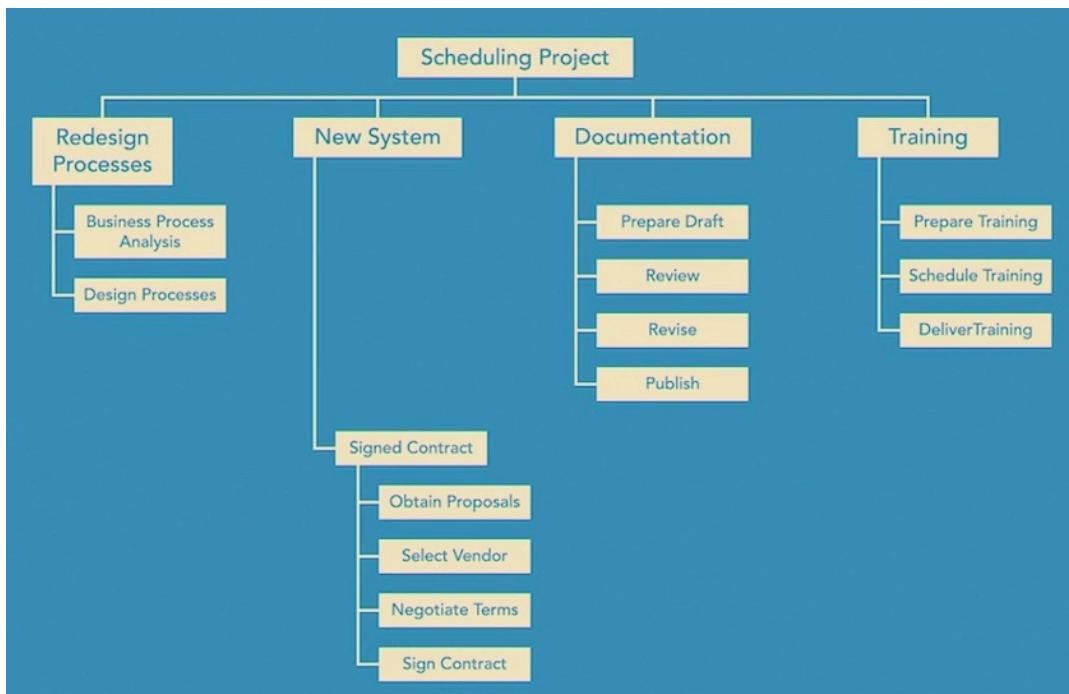
⚠ Project plan

- used over the course of project
- directs people tasks
- tracks project's progression

- aids in course correction
- communicate progress with stakeholders

⚠ Work Breakdown Structure (WBS)

- Summary Tasks
 - higher-level tasks in WBS
- Work Packages
 - lowest level in WBS



⚠ Determining Breakdowns

- Time and Cost are easy to estimate
- Status is easy to measure
- Task durations are shorter than reporting periods
- Details are manageable

A Work package document

Scheduling Project

WBS:	2.3.4.1
Work Package:	Install scheduling client on desktop machines
Package Owner:	Nicholas Anderson
Owner Org:	General services
Participants:	IT Staff, vendor resources
Description:	Schedule installation during off-hours. Backup system. Install scheduling client. Complete configuration steps. Test installation.
Completion State:	For each desktop machine, Run the scheduling client and perform all the steps on the installation test script. Work package is complete when all desktop machines have passed the test script.
Reference Docs:	Installation_test_script.doc

A Estimation Techniques

- Delphi method
- Top down
- Bottom up

A Don't use $\frac{\text{best-case}}{\text{average}}$ estimate

$$\frac{\text{best-case}}{\text{average}}$$
$$\frac{\text{average}}{\text{worst-case}}$$

A Use 86% probability to choose your estimate



Resource Management Plan

- roles
- responsibilities
- reporting structure
- skills
- staffing

Project schedule

- Put tasks in sequential order
- estimate the time each task will take
- Assign tasks to project team members
- calculate task duration
- Account for deadlines & other constraints

Project cost

- Labor
- Burdened cost
- Time-based resources
- Materials
- Ancillary

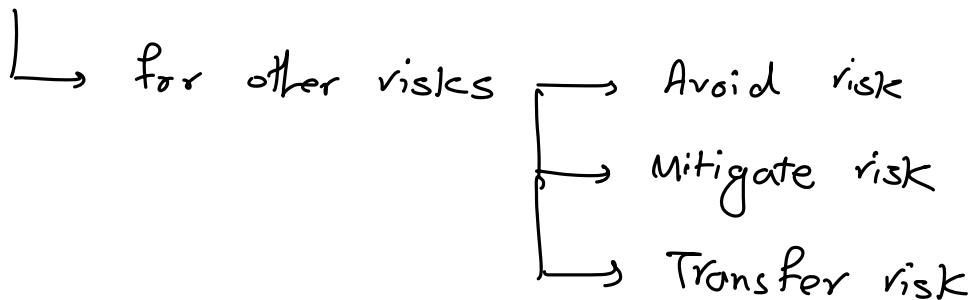
⚠ Risk information sheet

Risk Information Sheet

ID: 1.	Risk: Scheduling system might not deliver all the features required			
Priority: 2	Descr: Scheduling system might not offer required functionality, even with customization, and might not integrate 100% with existing technology.			
Prob: 3				
Impact: 5				
\$ Impact:				
Sched Impact:				
1 month				
Origin: IT	Class: Technology	Assigned to: IT department		
Response Options: M, T	Primary Response: Mitigate			
Response Strategy				
Put together a prototype to test crucial features and integration with existing equipment.				
Actions				
1. Hire most experienced vendor. 2. Build prototype system. 3. Test systems.				
Contingency Plan				
Identify alternative system to use if prototype isn't successful.				
Status	Date			
Approved	Date	Reason		

⚠ Typically, you should set 15% aside for risks

⚠ Accept the consequences for low probability and impact risks



⚠ Communication Plan

- Management:

Who	What	How
Management	Objective	Project plan Status reports Expenditures Closeout report

- Sponsor :

Who	What	How
Sponsor	Objective	Weekly 1:1

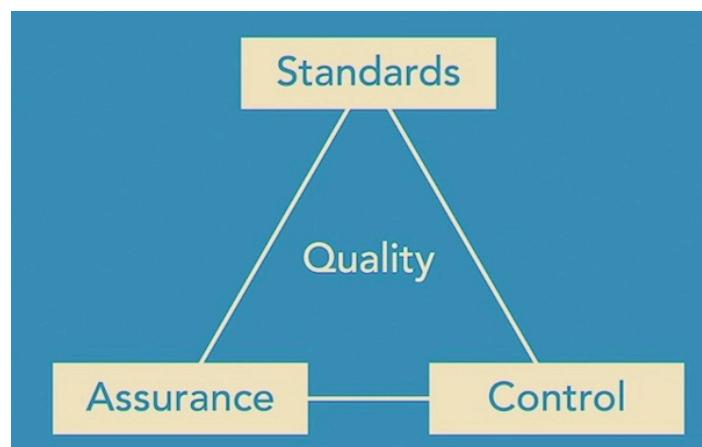
- Functional Managers

Who	What	How
Functional managers	Skill sets Milestones Constraints Schedules	Bi-weekly email

- Team Members

Who	What	How
Team	Assignments Upcoming tasks Changes Best practices	Weekly emails

⚠ Quality Components



⚠ Quality Plan Processes

- Acceptance test
- Inspection
- Peer review
- Walk through
- Audit

⚠ Change Request Form

1. Submitter – General Information	
CR#: 001	Description of Request:
Requestor:	Reason for Change:
Date submitted:	
Date required:	Business Justification:
Priority:	
Expected Results:	

2. Change Review Board - Decision			
Decision	Approved	Rejected	More Info
Decision Date:	Signature:		

⚠ Change Management Process

- Receive change request
- Evaluate change request
- Reviewed by change request board
- Track change request

⚠ How to plan procurement plan

- identify purchase needs
- document procurement processes
- Describe the make or buy decision process
- List potential vendors

⚠ Request For Proposal (RFP)

Request For Proposal Hospital Scheduling System

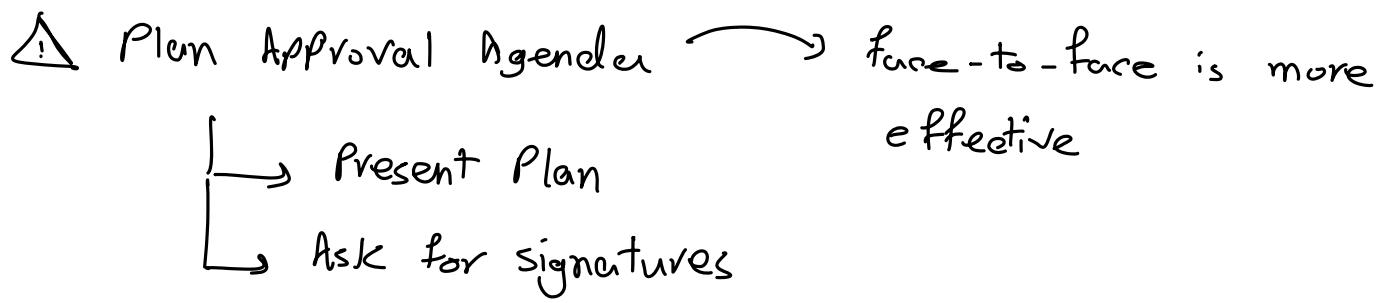
Scope of Services:	Implementation of hospital scheduling system. See attached scope statement and requirements document.
Implementation Deadline:	November 30, 2019
Budget:	\$950,000
Evaluation Criteria:	<ul style="list-style-type: none">• Scheduling system can deliver 75% of requirements without customization.!• Vendor has 10+ year track record in healthcare industry.!• Vendor has successfully implemented system in at least 10 hospitals of similar size.!• Vendor can deliver system with customization within the project schedule and budget.!• Vendor provides customer service for at least 6 months after implementation.!• Vendor offers options for support services.!
Proposal Requirements:	Response cover letter List of previous implementations Proposal
Deadline to Submit:	August 15, 2019 5pm EST
Award Date:	September 30, 2019

⚠ Contract components

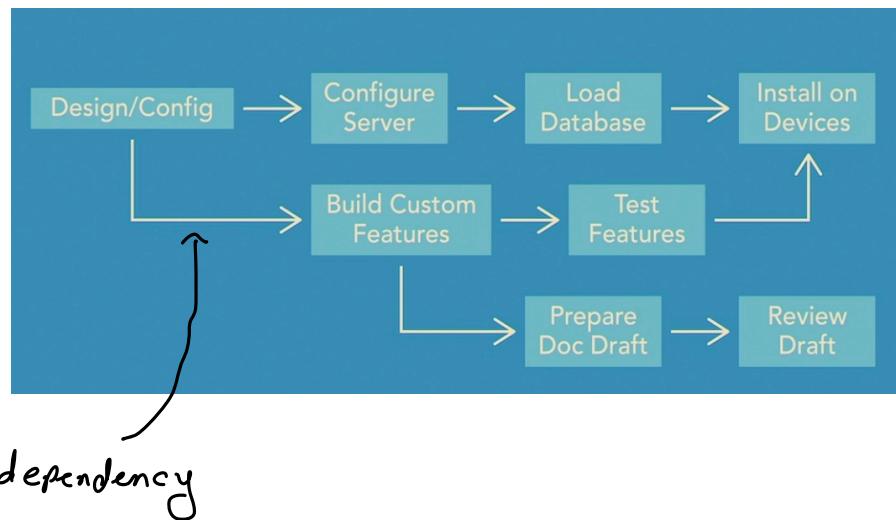
- Statement of work
- Terms and conditions
- Deliverables
- Deadlines
- Price

⚠ contract types

- Fixed-price
- Cost-Plus
- Retainer



⚠ Network diagram

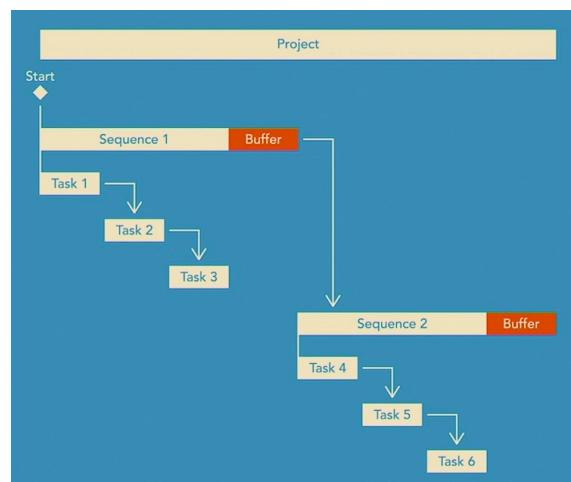


⚠ work = Duration × Resource assignment units

⚠ Milestone helps highlight your progress

⚠ The critical path is the place to look when you want to keep your project on time or deliver it early

⚠ Critical Chain Method



⚠ Techniques to shorten project schedule

- Fast-tracking
- crashing
- Cut project scope

⚠ Project Baseline is collection of approved documents

- is controlled by change management process
- used to evaluate progress and project performance

⚠ Agile philosophy

- importance placed on people and interaction
- produce a product, not documentation
- customer collaborates throughout project
- changes are expected and welcomed

⚠ The Agile lifecycle



▲ Envision

- project goal
- objectives
- Team
- Guidelines

▲ Speculate

- Requirements
- Features
- Estimates
- Risks

▲ Explore

- Build features
- Peer reviews
- Testing

Adapt

- Act on feedback
- capture lessons learned

▲ Iteration, Milestone and Release Plan

- Features
- schedules in iterations
- implemented in organization

▲ Daily stand-up meetings

- 15 to 30 minutes long
- what was completed the day before
- what is planned for today
- Help needed

△ RM's contribution

- ↳ remove obstacles
- ↳ track progress
- ↳ resolve issues

△ Customer Review

- ↳ Are features working correctly
- ↳ Do they produce the intended business benefits?

△ close phase

- ↳ Reconcile the project financials
- ↳ Reassign team members
- ↳ update stakeholders

△ kickoff meeting

- ↳ Describe the mission
- ↳ Introduce the team
- ↳ Review high-level project plan
- ↳ Review high-level assignments
- ↳ Explain project processes and procedures

△ Monitoring

- ↳ collect data on where the project stands

A Controlling

- ↳ correct course to keep project on track

A Productive Meeting

- ↳ identify the purpose
- ↳ create an agenda
- ↳ limit attendees
- ↳ Allow time for preparation
- ↳ start and finish on time
- ↳ Facilitate the meeting
- ↳ Take notes

A Managing Technical Teams

- ↳ help them understand business objectives
- ↳ help identify problems and solutions
- ↳ Avoid adding features that don't need business needs
- ↳ Beware of perfection mentality

A Scope creep

- ↳ Undocumented changes to scope without corresponding changes to schedule or budget

⚠ How to prevent scope creep

- reset unrealistic expectations
- enforce the change management process
- renegotiate the scope statement
- Use an iterative methodology

⚠ Risk owner responsibilities

- implement proactive risk responses
- watch for high priority risks unfolding
- Monitor events that trigger contingency plans
- launch risk response
- report on risk status

⚠ Earned value Analysis

- The financial value a project has earned based on work completed

⚠ How to solve problems

- Focus on what's important
- Understand the problem
- Prioritize problems based on their impacts
- Ask for help if needed

⚠ Closing steps

- obtain acceptance in writing
- Document lessons learned
- Produce a closeout report
- Close contracts
- Archive project information
- Transition Team