

# Project Planning

# Project Management Plan

- ▶ Describe the management of the project
  - ▶ Milestones and deliverables of project
  - ▶ Risks and mitigation strategies

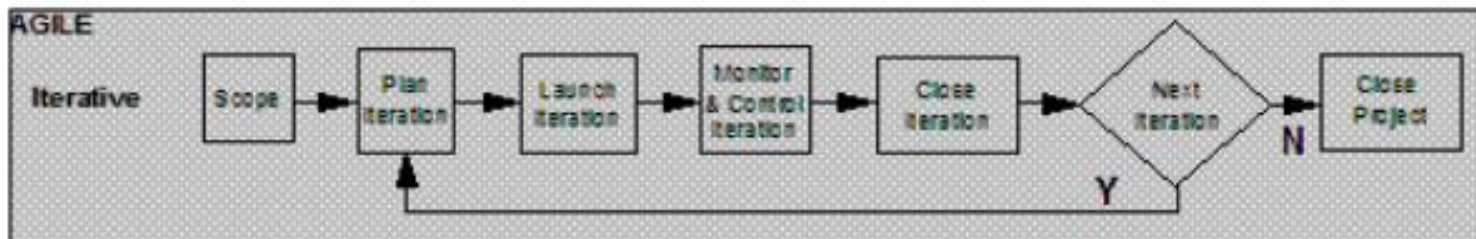
# Interim Deliverables

- ▶ Break a project down into sub-projects
- ▶ Define interim deliverables around objectives or goals
- ▶ Also regarded as project milestones

# Project Management Life Cycle

- ▶ Traditional
- ▶ Incremental planning
- ▶ Iterative planning
- ▶ Adaptive planning
- ▶ Extreme Planning

# Project Management Life Cycle



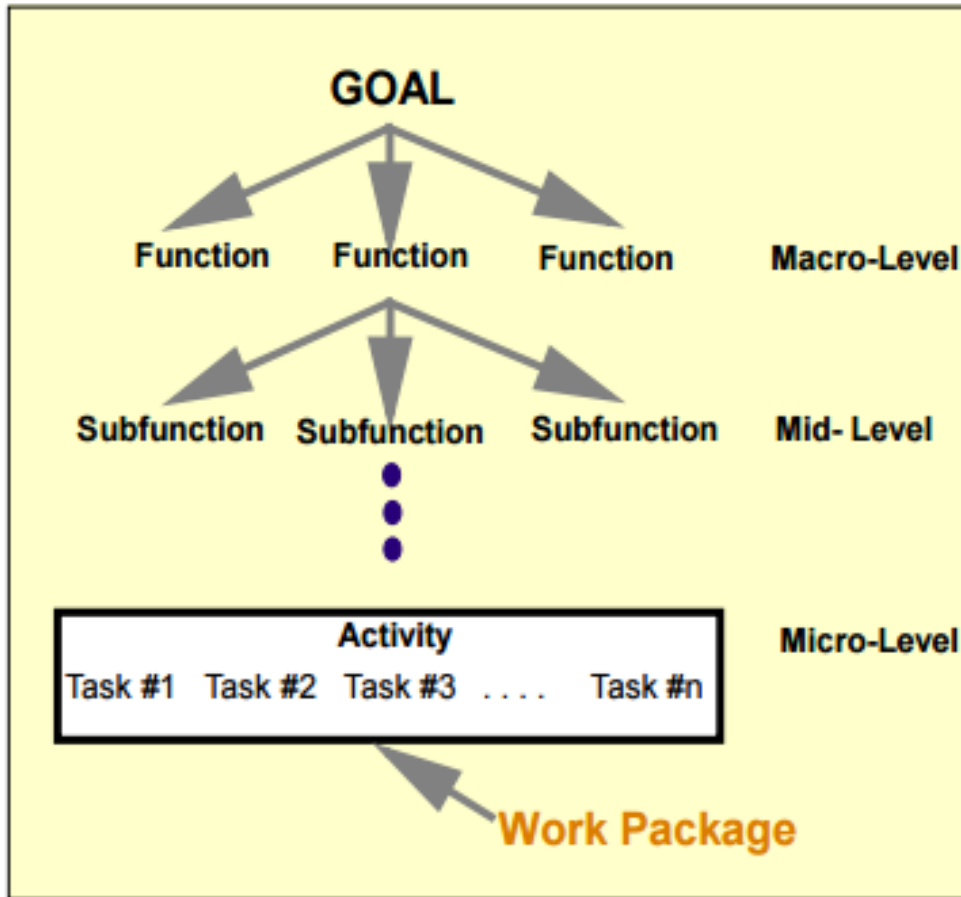
# Plan the Project

- ▶ Identify work to be done and estimate time, cost and resource requirements
  - ▶ Define all of the work of project (WBS)
  - ▶ Estimate how long it will take to complete these works
  - ▶ Sequencing the work and building initial project schedule
  - ▶ Estimate the resources required to complete them
  - ▶ Writing risk management plan

# Work Breakdown Structure

- ▶ Defines each activity required to complete the project
- ▶ Hierarchical description of all the work that must be done to complete the proposed project.
- ▶ Key to writing good WBS:
  - ▶ Decompose project goal into major activities
  - ▶ Keep breaking those activities down until you get to the smallest level of tasks mentioned earlier
  - ▶ Caution: A WBS with too much detail is time consuming while WBS with not enough details will lead to lossing of important tasks

# Work Breakdown Structure



Function of WBS:

- 1) Estimate duration
- 2) Determine resources
- 3) Schedule work



# Work Breakdown Structure Representation

- ▶ Different types of WBS representation
  - ▶ Outline view
  - ▶ Hierarchical structure
  - ▶ Tabular view
  - ▶ Structure view

# Outline View

## 1. Web development platform

### 1.1 Initiation

1.1.1 Develop Project Charter

1.1.2 Develop System Vision Document

1.1.3 Develop Project Proposal

### 1.2 Planning

### 1.3 Interface Design

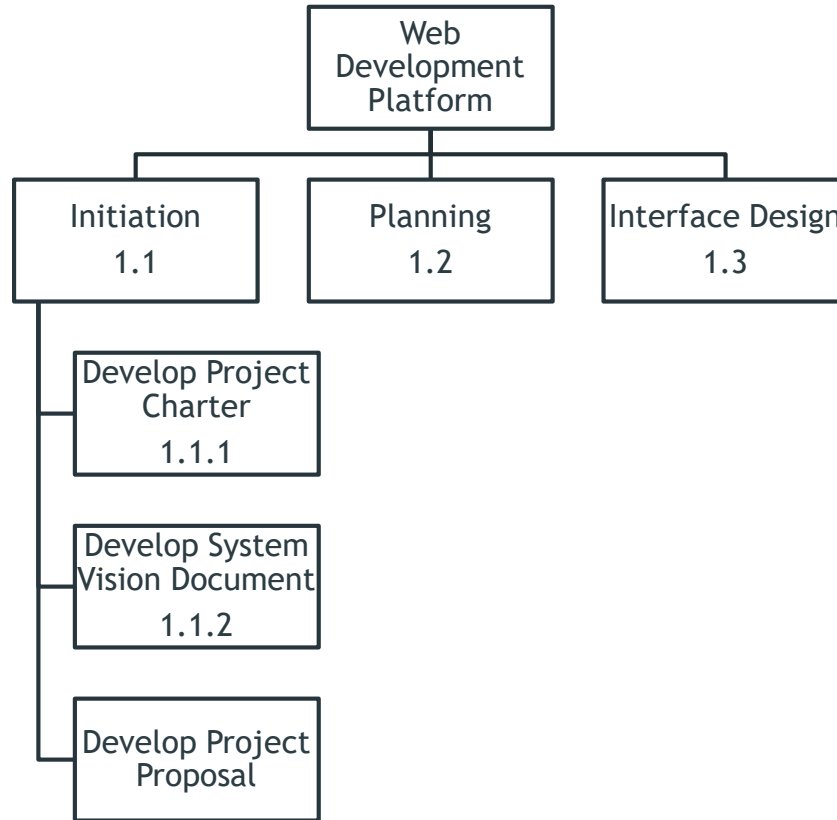
# Hierarchical Structure

Level	WBS Code	Element Name
1	1	Web Development Platform
2	1.1	Initiation
3	1.1.1	Develop Project Charter
3	1.1.2	Develop System Vision Document
3	1.1.3	Develop Project Proposal
2	1.2	Planning
2	1.3	Interface Design

# Tabular View

Level 1	Level 2	Level 3
1 Web Development Platform	1.1 Initiation	1.1.1 Develop Project Charter 1.1.2 Develop System Vision Document 1.1.3 Develop Project Proposal
	1.2 Planning	1.2.1 1.2.2 1.2.3
	1.3 Interface Design	1.3.1 1.3.2 1.3.3

# Structure View



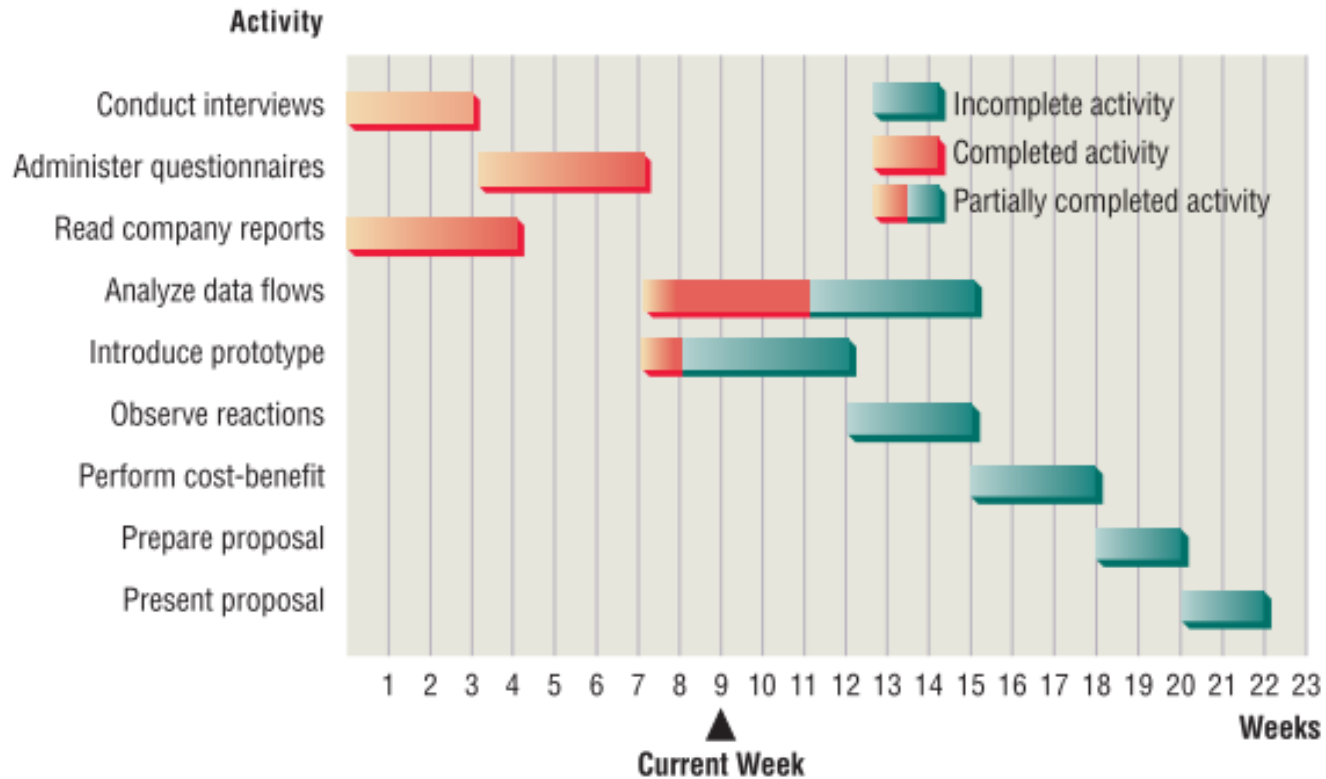
# Timelines

- ▶ Two types of timeline schedule
  - ▶ Calendar schedule: absolute time intervals based on actual time
    - ▶ Example: July 2017
  - ▶ Relative schedule: measured from the start of the project or based on some other key event
    - ▶ 1 month after Interface Design

# Gantt Chart

- ▶ Illustrates project schedule
- ▶ Series of horizontal lines shows the amount of work done or production completed in certain periods of time in relation to the amount planned
- ▶ Bars represent each task or activity
- ▶ Length of each bar represent the relative length of the task

# Example of Gantt Chart

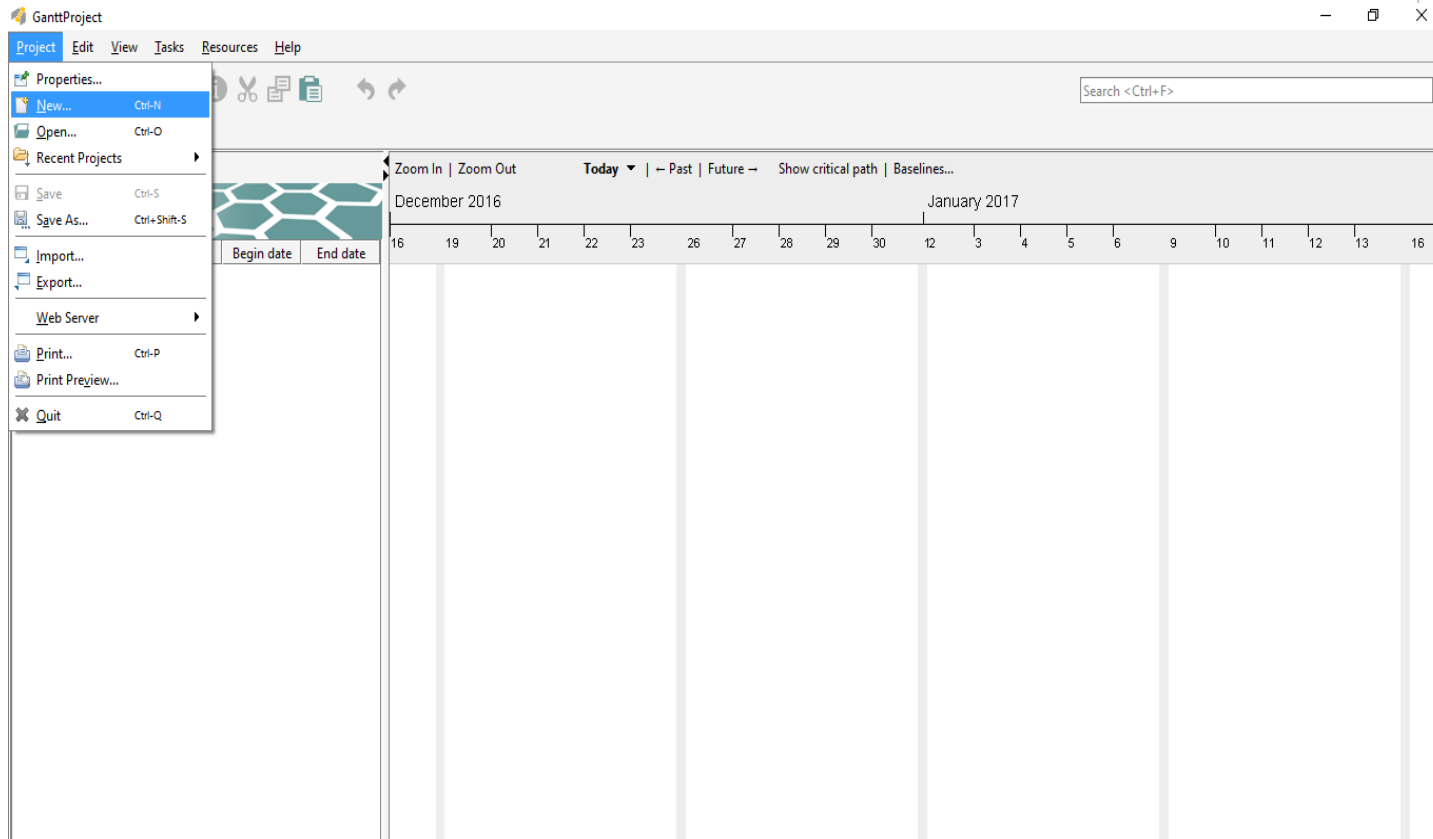




# Tools: Gantt Project

- Download from: <http://www.ganttproject.biz/>

# GanttProject Tutorial



# Create New Project

Create new project

Create new project (Step 1 of 3)

Name  
IT Mini Project

Organization

Web Link  
http://

Description

< Back Next > Ok Cancel

Create new project

Select your project domain (Step 2 of 3)

Choose role sets

☒ Default

☐ Software Development

< Back Next > Ok Cancel

# Create New Project

The screenshot shows a 'Create new project' dialog box with a yellow header bar indicating 'Configure weekends and public holidays (Step 3 of 3)'. The dialog includes checkboxes for days of the week, a dropdown for weekend task scheduling, a dropdown for the holiday calendar, and a section for one-off or recurring holidays with an 'Add' button and a table.

Create new project

**Configure weekends and public holidays (Step 3 of 3)**

Choose weekend ☐ Mon ☐ Tue ☐ Wed ☐ Thu ☐ Fri ☒ Sat ☒ Sun

On weekends

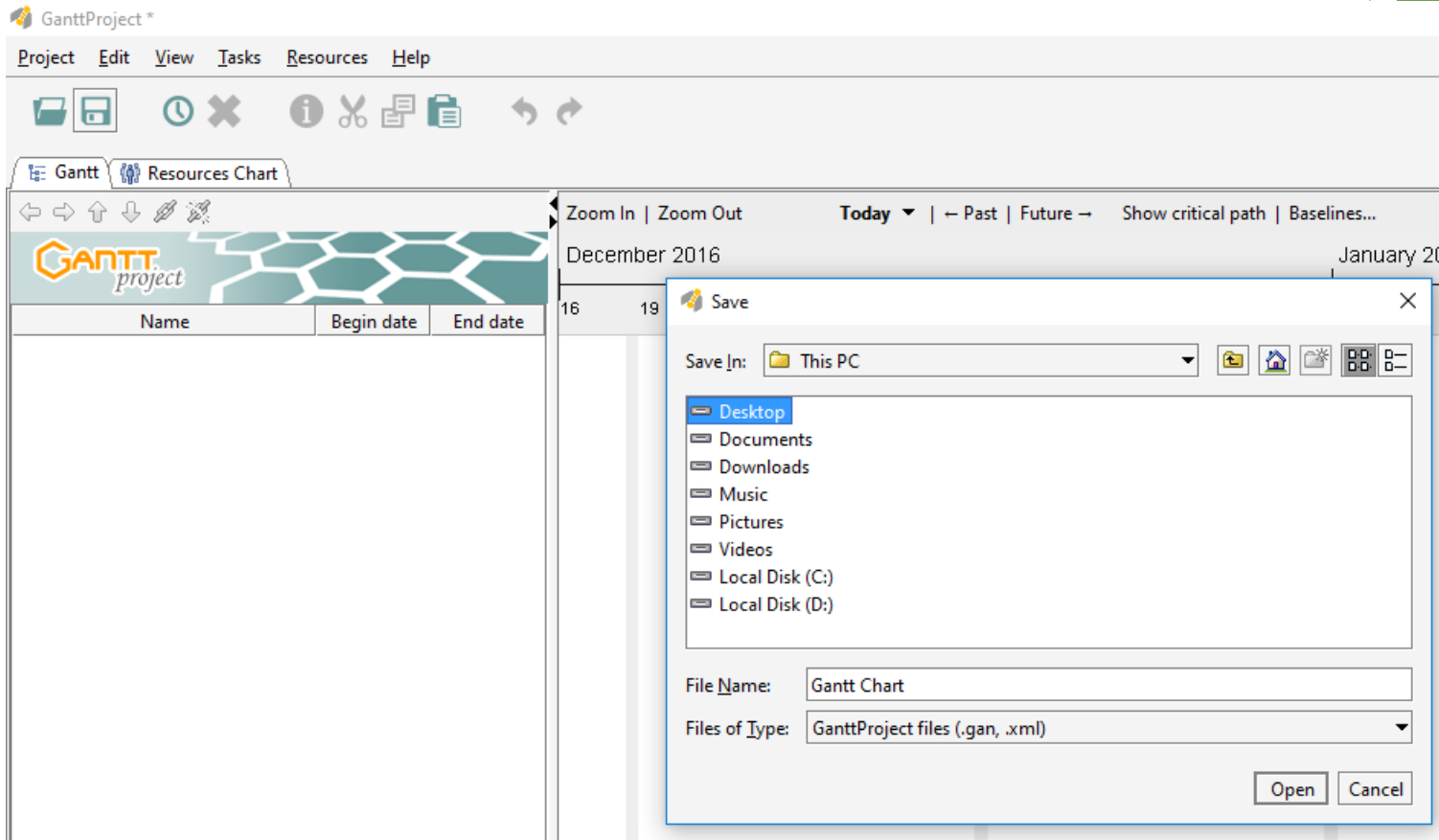
Holiday calendar

One-off **Recurring**

Dates	Summary	Type	Color

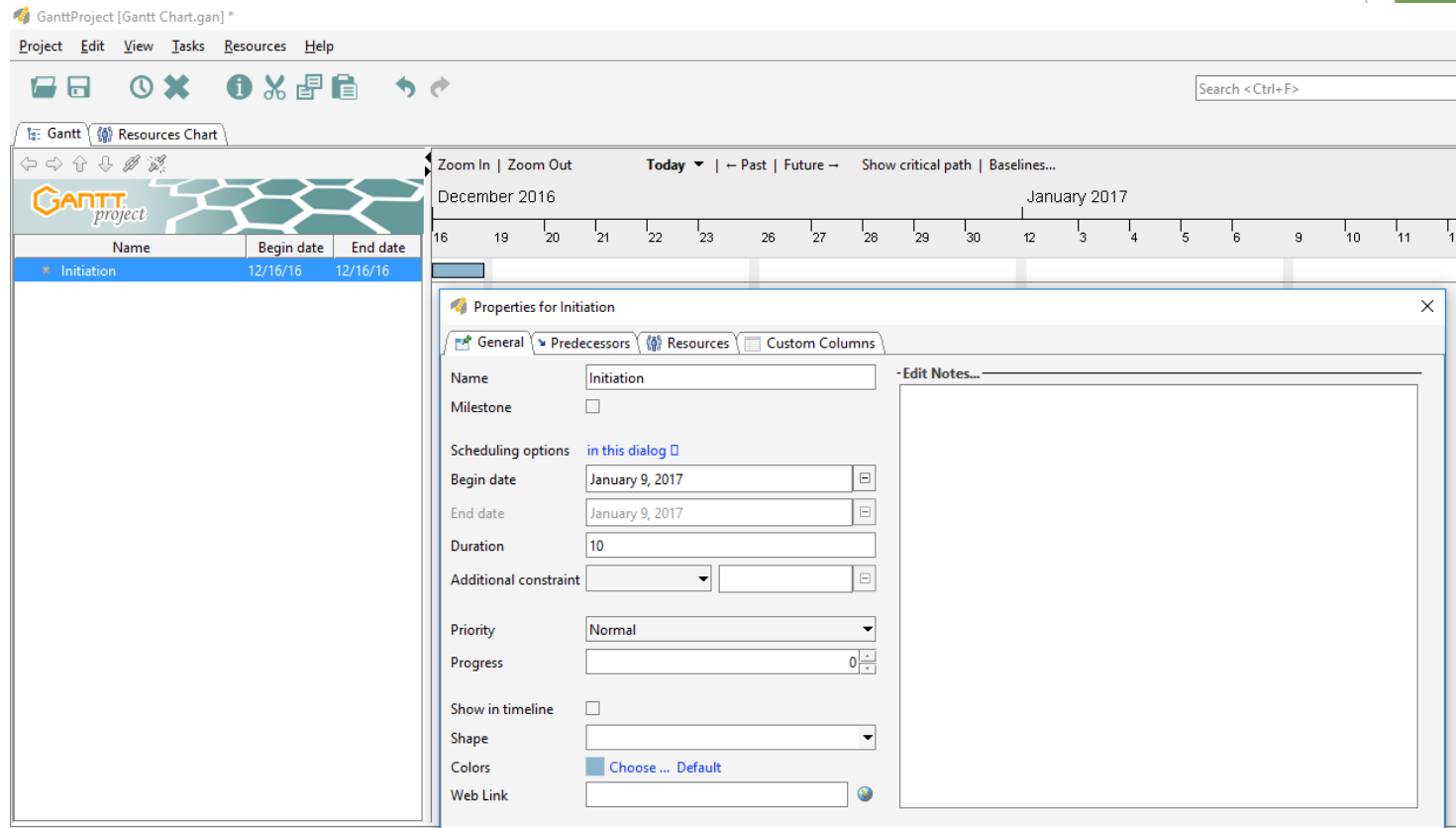
< Back Next >

# Save Project

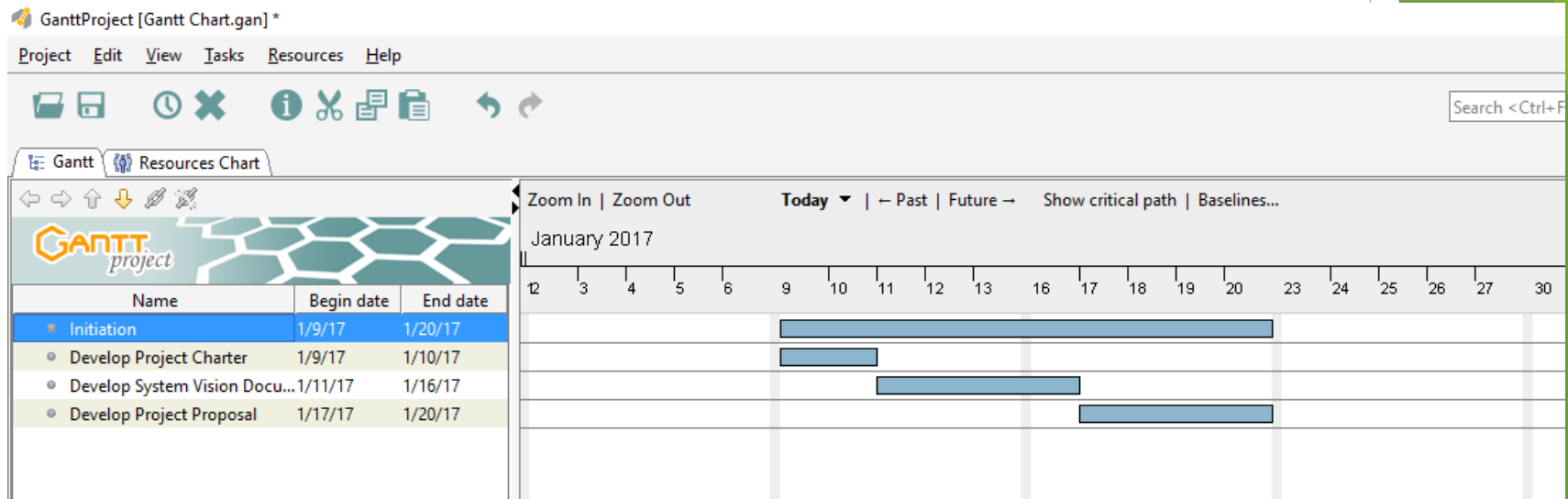


# Create New Task

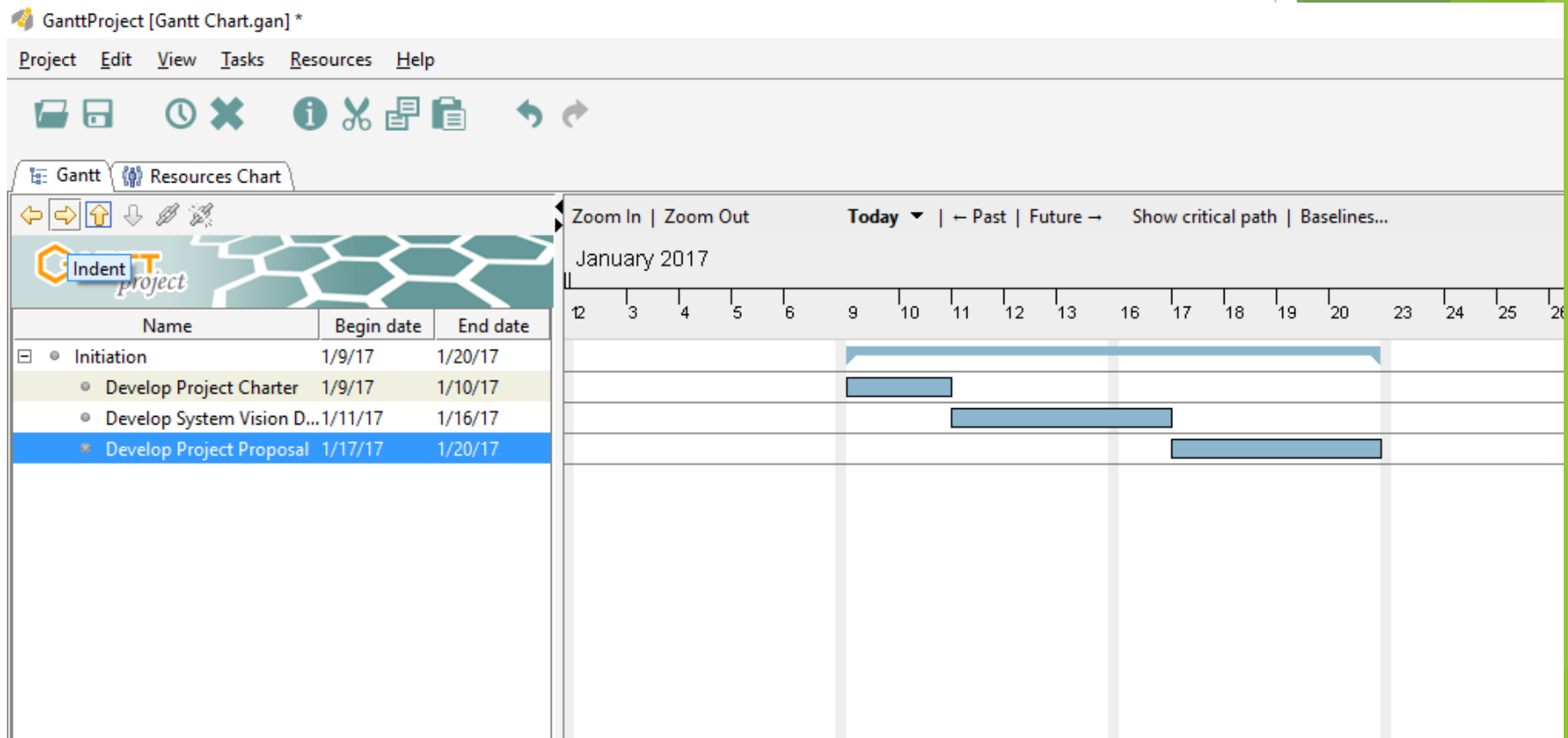
- ▶ Right click to add task
- ▶ Double click on the task to adjust setting



# Create tasks



# Indent Task





# Baseline vs Actual

GanttProject [Gantt Chart.gan] \*

Project Edit View Tasks Resources Help

Icons: File, Save, Print, Zoom, Copy, Paste, Undo, Redo

Views: Gantt Resources Chart

Navigation: Zoom In | Zoom Out Today | Past | Future → Show critical path | Baselines...

Calendar: January 2017

Name	Begin date	End date
Initiation	1/9/17	1/20/17
• Develop Project Charter	1/9/17	1/9/17
• Develop System Vision D...	1/11/17	1/17/17
• Develop Project Proposal	1/17/17	1/20/17

**Edit baselines**

Add Delete Hide baselines

Baseline | Add

<Type new baseline name here>

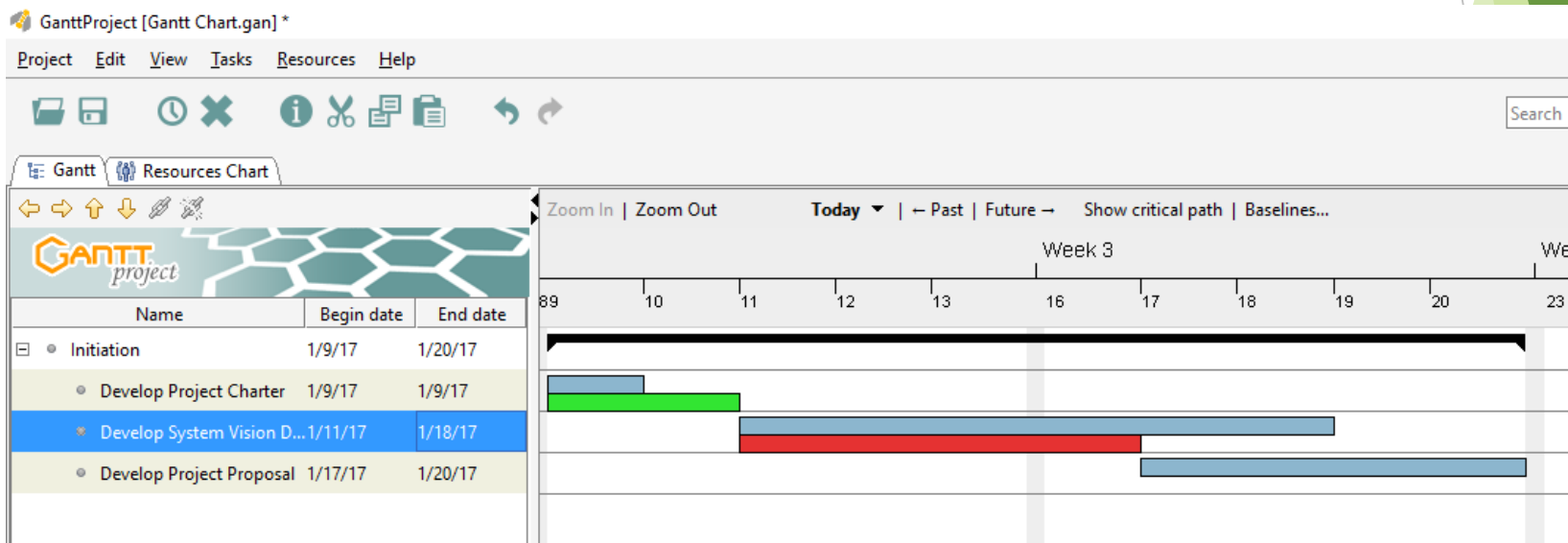
State comparison colors

- Task remains on schedule ☐ Choose ...
- Task completes earlier than before ☐ Choose ...
- Task completes later than before ☐ Choose ...

Ok Cancel

# Change new Timeline

- ▶ Double click on the task to set new completion date
- ▶ The green bar indicates early completion. Green bar is the baseline
- ▶ The red bar indicates late completion. Red is the baseline
- ▶ The blue bar is actual timeline



# Resource Requirements

- ▶ Types of resource requirements:
  - ▶ People
  - ▶ Facilities
  - ▶ Equipment
  - ▶ Money
  - ▶ Materials

# Example of Hardware and Software Requirements

Name	Description
Software	
Google Chrome	Browser use to view and test the web interface
Atom v1.11.2	Web programming editor use to code the web platform
JavaScript ES6	Main programming language for coding the platform
Hardware	
HP EliteBook	Laptop use for the development of platform