Introduction to Project Management
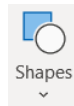
October 5, 2023

Day 4

Today's objectives

- Recap from Day 3
- Tools, Templates and Technology
- Advantages of Project Mgmt Certifications
- Q & A
- Wrap up
- What did you get out of this lunch 'n learn?

Tools
Templates
and Technology

Tools, Templates and Technology

Tools / Templates	Technology

• Task Lists
• Templates
• PERT & Critical Path
• Gantt Chart
	• Paper, Sticky Notes and Whiteboards
	• Software
	  • Microsoft Excel
	  • Microsoft Project
	  • Microsoft OneNote
	  • Microsoft Word
	• Apps for Smartphones
	• Communication Technology
	  • Email
	  • Shared folders
	  • Websites

Task List

- **Lists tasks** associated with the project
- **Tasks** are **activities** that need to be **completed**.
- Each task has a **name**, **duration, start date,** and **end date**.
- Each task may have related **predecessors** tasks, **lag time**, **assigned resources**, and **notes**.
- Usually, the **task start date** is **determined by** the **predecessor end date** plus **lag time**.
- **Assigned resources** are **people**, **equipment**, and/or **scarce supplies** that are needed to complete the task.

Task List

Project Name	Build Houses for Three Little Pigs
Project Manager	Momma pig

Task ID #	Task Name	Duration	Predecessor ID	Lag Duration	Start Date	End Date	Assigned Resources	Notes
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								

Predecessors, Paper, and Sticky Notes

Tasks for the Seven Dwarfs

- Dig for diamonds

- Drive home

- Drive to mine

- Finish

- Load diamonds and equipment back into the truck

- Move equipment into mines

- Start

Task List

Project Name	Get diamonds out of the mine							
Project Manager	Doc							

Task ID #	Task Name	Duration	Predecessor ID	Lag Duration	Start Date	End Date	Assigned Resources	Notes
1	Start	0			Mon Oct 9, 2023	Mon Oct 9, 2023		
2	Drive to mines	2 D	1		Mon Oct 9, 2023	Tue Oct 10, 2023	Doc	
3	Move equipment into mines	1 D	2		Wed Oct 11, 2023	Wed Oct 11, 2023	Everyone	
4	Dig diamonds	12 D	3		Thu Oct 12, 2023	Fri Oct 27, 2023	Everyone	
5	Load diamonds in truck	3 D	4	- 2 D	Thu Oct 26, 2023	Mon Oct 30, 2023	Everyone	
6	Drive home	3 D	5		Tue Oct 31, 2023	Thu Nov 2, 2023	Doc	
7	Finish	0	6		Thu Nov 2, 2023	Thu Nov 2, 2023		

PERT Chart

Program **E**valuation **R**eview Technique

"A project management tool (PERT) chart is **graphically representation** of a project's timeline that **displays all** of the individual **tasks** necessary to complete the project."

https://www.investopedia.com/terms/p/pert-chart.asp

See example at
https://d2slcw3kip6qmk.cloudfront.net/marketing/blog/2017Q2/PERT-chart-example-2.png
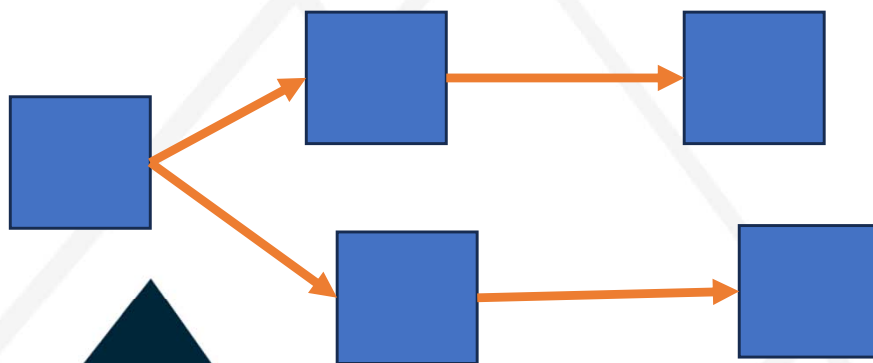
PERT Chart – How to create

- Each **task name** and **duration** is put on a **Sticky note**.

- **Sticky notes** are placed on a **whiteboard** or **wall** in **sequential order**.

- Each Sticky Note is then **recreated electronically** in **Word**, **Excel** or **PowerPoint** using the **Insert Shapes** command.
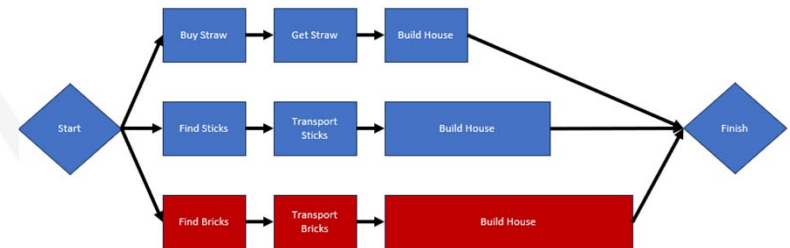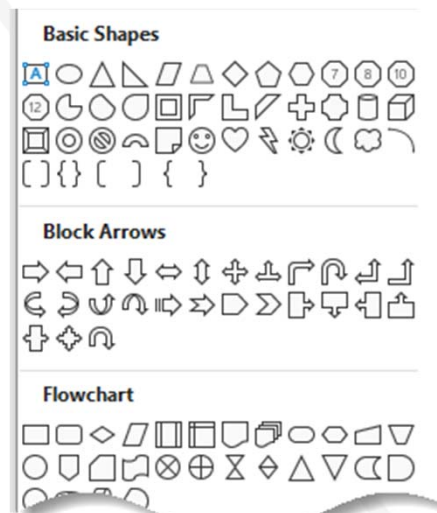
Exercise: PERT and the 3 Little Pigs

- Begin Project
- Build Brick House
- Build Stick House
- Build Straw House
- Buy Bricks
- Buy Straw
- End Project
- Find Sticks
- Finish Brick House

- Finish Stick House
- Finish Straw House
- Get Straw
- Start Brick House
- Start Stick House
- Start Straw House
- Transport Bricks
- Transport Sticks

PERT Chart

Start → Buy Straw → Get Straw → Build House → Finish

Start → Find Sticks → Transport Sticks → Build House → Finish

Start → Find Bricks → Transport Bricks → Build House → Finish

Slack Time
Time you can slack off without affecting the completion date.
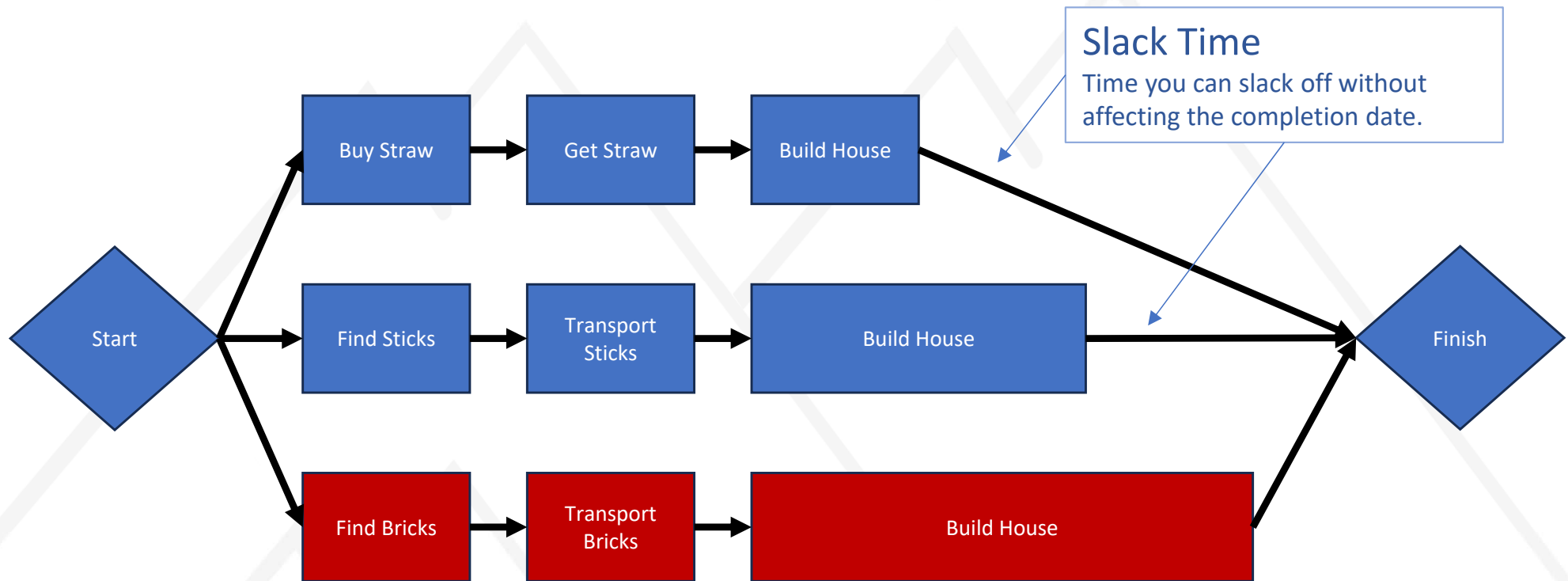
Critical Path
The brick house takes the longest and therefore determines the duration of the whole project.
It is therefore **critical** that its tasks not be delayed.

Gantt Chart

- Created by Henry L. Gantt.
- It graphically **displays** the **tasks** on a **timeline**.
- Can be created in Excel, OneNote, and MS Project.

Project Name	Build Houses for Three Little Pigs						Mon Oct 02 2023 P1	Tue Oct 03 2023 P2	Wed Oct 04 2023 P3	Thu Oct 05 2023 P4	Fri Oct 06 2023 P5	Mon Oct 09 2023 P6	Tue Oct 10 2023 P7	Wed Oct 11 2023 P8	Thu Oct 12 2023 P9	Fri Oct 13 2023 P10	Mon Oct 16 2023 P11	Tue Oct 17 2023 P12	Wed Oct 18 2023 P13	Thu Oct 19 2023 P14	Fri Oct 20 2023 P15	Mon Oct 23 2023 P16	Tue Oct 24 2023 P17	Wed Oct 25 2023 P18	Thu Oct 26 2023 P19	Fri Oct 27 2023 P20
Project Manager	Momma pig																										
Project Start Date	Mon 10/02/2023																										
Project End Date (Goal)	Thu 11/30/2023																										
Task ID	Task Name	Duration	Predecessor	Lag	Start Date	End Date																				
1	Start Straw House	0			Mon 10/02/2023	Mon 10/02/2023																				
2	Buy Straw	2			Mon 10/02/2023	Tue 10/03/2023																				
3	Get Straw	1	2		Wed 10/04/2023	Wed 10/04/2023																				
4	Build House	3	3		Thu 10/05/2023	Mon 10/09/2023																				
5	Finish Straw House	0	4		Tue 10/10/2023	Tue 10/10/2023																				
6	Start Stick House	0			Mon 10/02/2023	Mon 10/02/2023																				
7	Find Sticks	4			Mon 10/02/2023	Thu 10/05/2023																				
8	Transport Sticks	1	7		Fri 10/06/2023	Fri 10/06/2023																				
9	Build House	6	8		Mon 10/09/2023	Mon 10/16/2023																				
10	Finish Stick House	0	9		Tue 10/17/2023	Tue 10/17/2023																				
11	Start Brick House	0			Mon 10/02/2023	Mon 10/02/2023																				
12	Buy Bricks	5			Mon 10/02/2023	Fri 10/06/2023																				
13	Transport Bricks	2	12		Mon 10/09/2023	Tue 10/10/2023																				
14	Build House	12	13		Wed 10/11/2023	Thu 10/26/2023																				
15	Finish Brick House	0	14		Fri 10/27/2023	Fri 10/27/2023																				

Gantt Chart in Excel

- Open the Template.
- Enter the tasks, durations, predecessors, and lag time.
- Do not enter the start and end dates, as they are calculations.

Project Name	Build Houses for Three Little Pigs						Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri
Project Manager	Momma pig						Oct	Oct	Oct	Oct	Oct	Oct	Oct	Oct	Oct	Oct	Oct	Oct	Oct	Oct	Oct	Oct	Oct	Oct	Oct	Oct
Project Start Date	Mon 10/02/2023						02	03	04	05	06	09	10	11	12	13	16	17	18	19	20	23	24	25	26	27
Project End Date (Goal)	Thu 11/30/2023						2023	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023
Task ID	Task Name	Duration	Predecessor	Lag	Start Date	End Date	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20
1	Start Straw House	0			Mon 10/02/2023	Mon 10/02/2023																				
2	Buy Straw	2			Mon 10/02/2023	Tue 10/03/2023																				
3	Get Straw	1	2		Wed 10/04/2023	Wed 10/04/2023																				
4	Build House	3	3		Thu 10/05/2023	Mon 10/09/2023																				
5	Finish Straw House	0	4		Tue 10/10/2023	Tue 10/10/2023																				
6	Start Stick House	0			Mon 10/02/2023	Mon 10/02/2023																				
7	Find Sticks	4			Mon 10/02/2023	Thu 10/05/2023																				
8	Transport Sticks	1	7		Fri 10/06/2023	Fri 10/06/2023																				
9	Build House	6	8		Mon 10/09/2023	Mon 10/16/2023																				
10	Finish Stick House	0	9		Tue 10/17/2023	Tue 10/17/2023																				
11	Start Brick House	0			Mon 10/02/2023	Mon 10/02/2023																				
12	Buy Bricks	5			Mon 10/02/2023	Fri 10/06/2023																				
13	Transport Bricks	2	12		Mon 10/09/2023	Tue 10/10/2023																				
14	Build House	12	13		Wed 10/11/2023	Thu 10/26/2023																				
15	Finish Brick House	0	14		Fri 10/27/2023	Fri 10/27/2023																				

MS Project

Buying Microsoft Project 2021

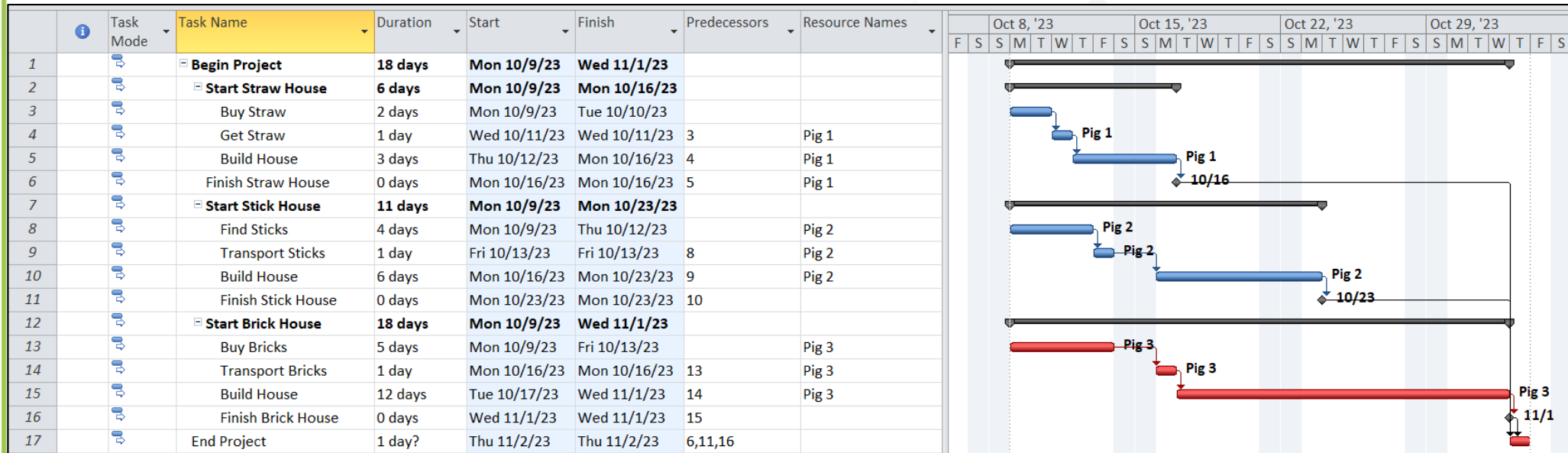- Microsoft has 3 cloud-based solutions
  - Project Plan 1 - $10 user / month
  - Project Plan 3 - $30 user / month
  - Project Plan 5 - $50 user / month

- Microsoft has 3 On-premise solutions
  - Project Standard 2021 - $679 (one-time purchase)
  - Project Professional 2021 - $1,129 (one-time purchase)
  - Project Server – price not listed

Source: https://www.microsoft.com/en-us/microsoft-365/project/compare-microsoft-project-management-software

Gantt Chart in MS Project

- Open the Template.

- Enter settings (File, Options, Schedule).

- Enter the tasks, and durations.

- Indent to create summary and subtasks.

- Link tasks to identify predecessors.

- Assign Resources in the Resource Names column.

- Do not enter the start and end dates, as they are calculations.

Gantt Chart in MS Project

	ⓘ	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names
1		▭	Begin Project	18 days	Mon 10/9/23	Wed 11/1/23		
2		▭	Start Straw House	6 days	Mon 10/9/23	Mon 10/16/23		
3		▭	Buy Straw	2 days	Mon 10/9/23	Tue 10/10/23		
4		▭	Get Straw	1 day	Wed 10/11/23	Wed 10/11/23	3	Pig 1
5		▭	Build House	3 days	Thu 10/12/23	Mon 10/16/23	4	Pig 1
6		▭	Finish Straw House	0 days	Mon 10/16/23	Mon 10/16/23	5	Pig 1
7		▭	Start Stick House	11 days	Mon 10/9/23	Mon 10/23/23		
8		▭	Find Sticks	4 days	Mon 10/9/23	Thu 10/12/23		Pig 2
9		▭	Transport Sticks	1 day	Fri 10/13/23	Fri 10/13/23	8	Pig 2
10		▭	Build House	6 days	Mon 10/16/23	Mon 10/23/23	9	Pig 2
11		▭	Finish Stick House	0 days	Mon 10/23/23	Mon 10/23/23	10	
12		▭	Start Brick House	18 days	Mon 10/9/23	Wed 11/1/23		
13		▭	Buy Bricks	5 days	Mon 10/9/23	Fri 10/13/23		Pig 3
14		▭	Transport Bricks	1 day	Mon 10/16/23	Mon 10/16/23	13	Pig 3
15		▭	Build House	12 days	Tue 10/17/23	Wed 11/1/23	14	Pig 3
16		▭	Finish Brick House	0 days	Wed 11/1/23	Wed 11/1/23	15	
17		▭	End Project	1 day?	Thu 11/2/23	Thu 11/2/23	6,11,16	

Microsoft OneNote

- Microsoft OneNote is like an electronic notebook / 3 ring binder.

- It can contain many Notebooks.

- Each Notebook can have many sections.

- Each section can have many pages and 3 levels of subpages.

- Each page has an infinite length.

- Each page has a title, and create date and time.

- Each page can have a mixture of text, images, and more.

- OneNote comes with multiple templates.

- You can buy additional templates from various vendors on the web. Example: https://www.etsy.com/market/onenote_project_template

Microsoft OneNote Example

Microsoft Word Example

{Recipient Name}
{Recipient Address}

{Salutation}:

    {Client First Name}
Separation or Dissolution} of
and {Client First Name} feels
you. {Client First Name} has
manner as possible with the h
agreement.

    In order to expedite this dissolution proceeding, you will find enclosed endorsed-filed
copies of the Petition for {Legal Separation or Dissolution} with Declaration Under Uniform Child

Petition Cover Letter   ✕

Date:	October 4, 2023
Recipient Name:	Abraham Lincoln
Recipient Address:	301 South Second Street Springfield, IL 62701
Client First Name:	Mary
Client Full Name:	Mary Todd Lincoln
Client Pronouns	she / her / her
Separation or dissolution	Legal Separation
Opening Salutation:	Dear Mr. Lincoln
Closing Salutation:	Very truly yours, Ellen Winick Stross

About   Sample   Build   Cancel

Apps for Smart Phone

Task Management App: **Things**

https://culturedcode.com/things/
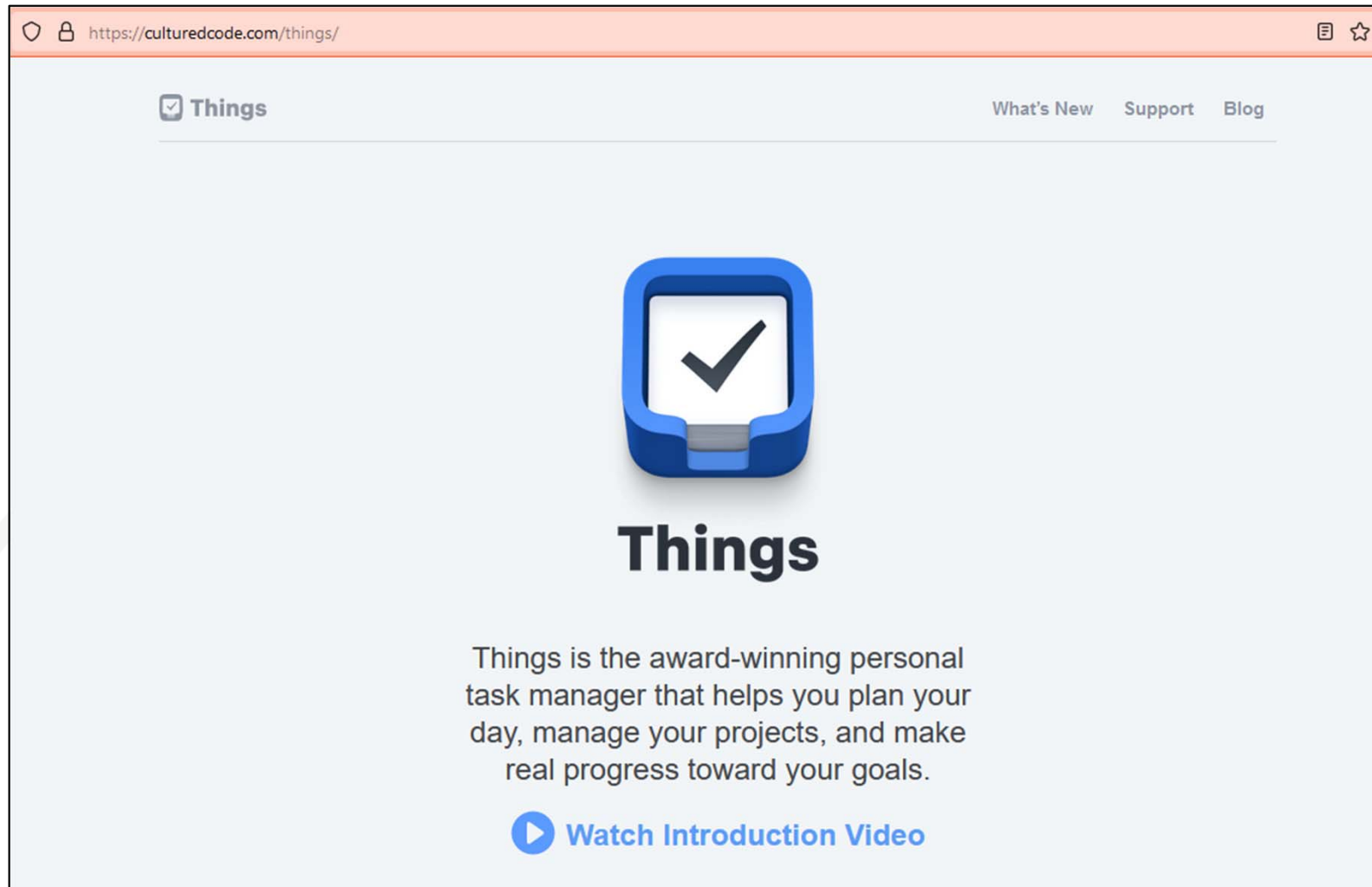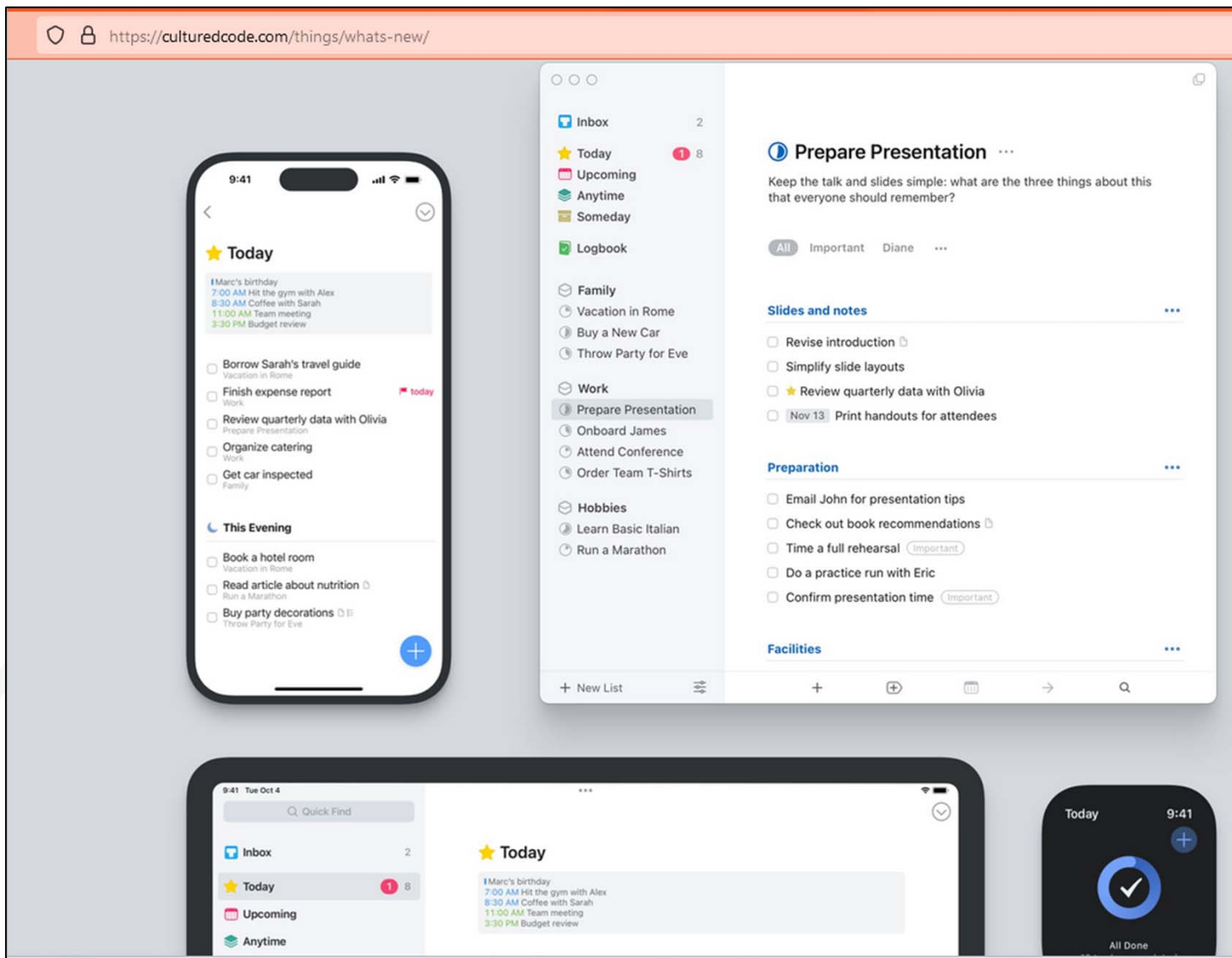
Task Management App: **Todoist**
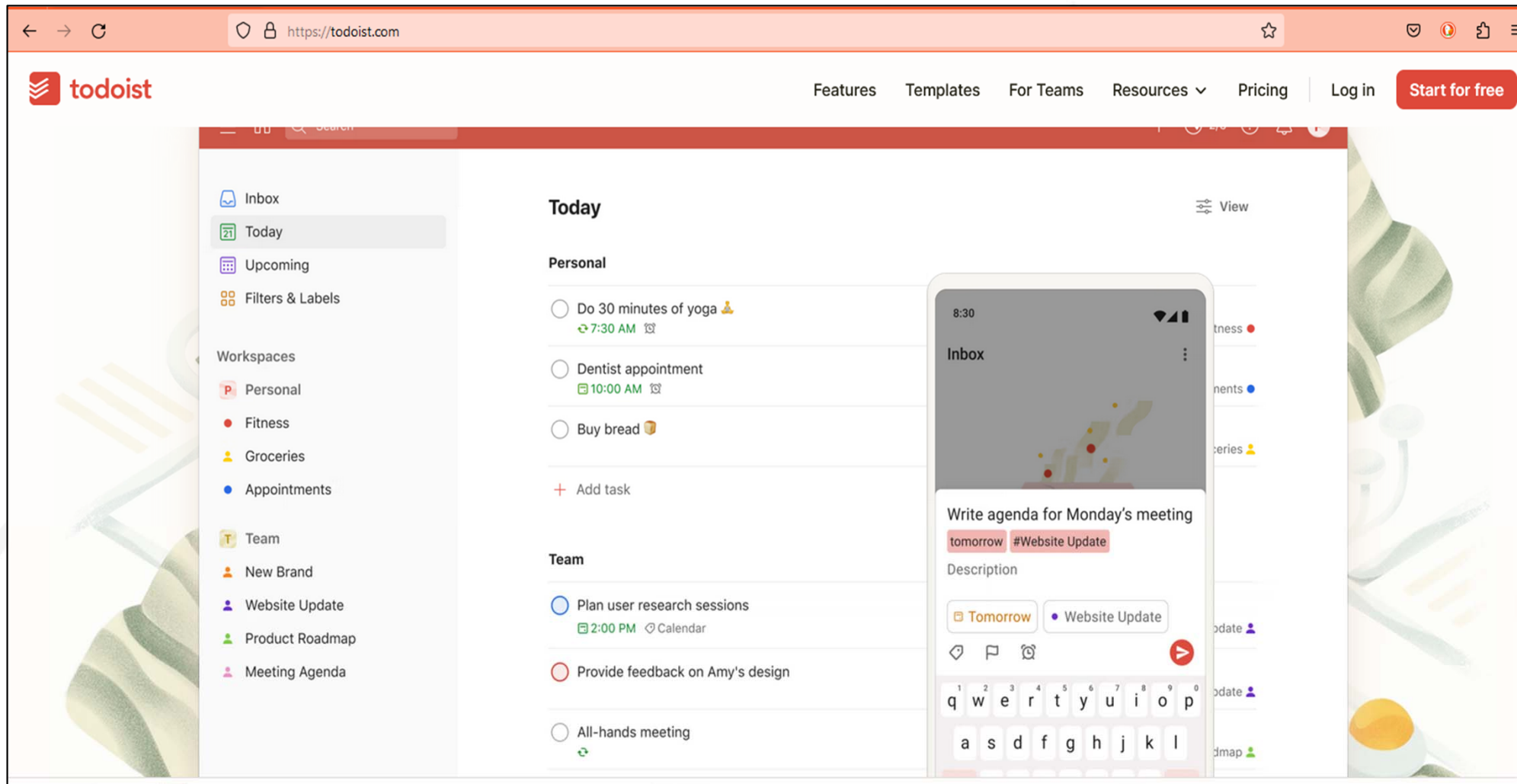
https://todoist.com/

todoist

Features   Templates   For Teams   Resources ⌄   Pricing | Log in   **Start for free**

Search templates

🔍 →

Categories

| **All templates**

2023 Goals

Marketing & Sales

Creative

Personal

Support

Design & Product

Boards

Development

Education

Work

Management

All templates

1-on-1 Meeting
Ensure priorities are clear and keep a pulse on how your team'...

Accounting Tasks
Create a system to keeps your books, receipts, and invoices...

Annual Review
Use this template to review everything – big and small – fro...

Appointments
Never forget (or forget to prepare for) another meeting or...

Blog Post
Go from inspiration to publication with this template for your blog.

Book Writing
Plan your writing and organize your schedule as you draft your...

Bug Tracking
Craft an organized bug tracking

Business Travel Packing
Never forget your laptop charger,

Quick Comparison

Things

- Op. Sys: Apple only
- Cost: 1x buy of $9.99 (iOS); $19.99 (iPad); $49.99 (Mac)
- Reminders: yes
- Templates: can create your own
- Labels or tags: yes
- Integrate with calendar: yes
- Team options: Apple family only
- Boards: no
- Number of Projects: unlimited

Todoist

- Op. Sys: Apple or Android
- Cost: Free (basic); $48/yr (Pro); $72/yr (Business) (or monthly)
- Reminders: With Pro or business
- Templates: With Pro or business
- Labels or tags: yes
- Integrate with calendar: yes
- Team options: with Pro or Business
- Boards: with Pro or Business
- Number of Projects:
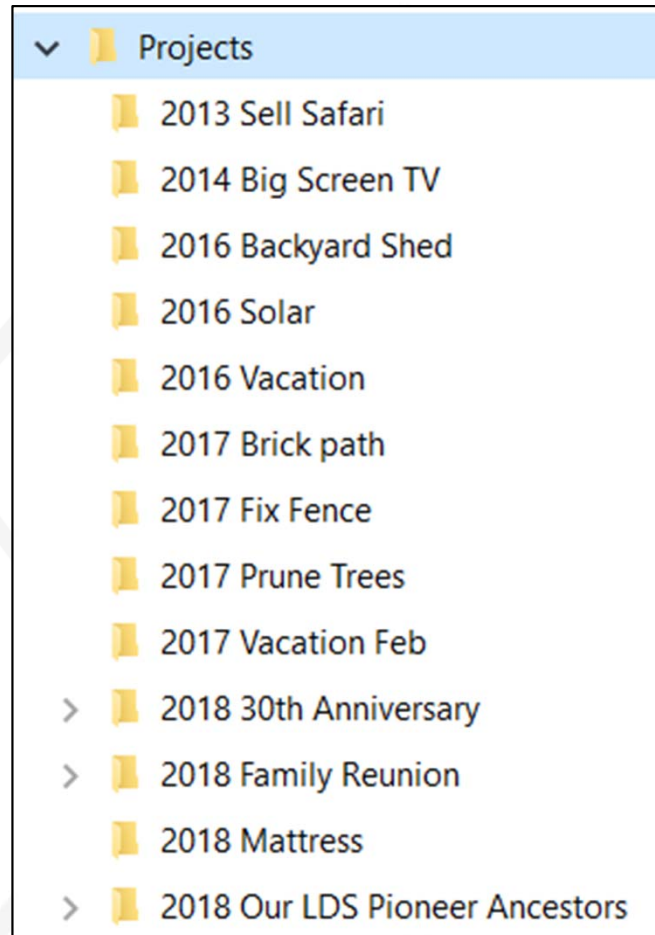 - 5 with basic
  - 300 or 500 with other versions

Sharing information via Email

- Email can be used to share content with the project resources, team members, stakeholders, etc.
- Before sending an attachment, be sure to scrub it for inappropriate material.
  - Word: **File**, **Info**, **Inspect Document**
  - Excel: **File**, **Info**, **Inspect Workbook**
  - PowerPoint: **File**, **Info**, **Inspect Presentation**
- Attach from the program
  - Word, Excel and PowerPoint: **File**, **Share**, **Word Document** | **PDF**.
  - OneNote: **File**, **Export**, **Page** | **Section** | **Notebook**, **pick a format**, click **Export**, and then **attach to email message**.

Folders

Projects
- 2013 Sell Safari
- 2014 Big Screen TV
- 2016 Backyard Shed
- 2016 Solar
- 2016 Vacation
- 2017 Brick path
- 2017 Fix Fence
- 2017 Prune Trees
- 2017 Vacation Feb
- 2018 30th Anniversary
- 2018 Family Reunion
- 2018 Mattress
- 2018 Our LDS Pioneer Ancestors

Folders – Best Practices

- Create **one** main **project folder** / **client folder**
- Create **one** main **subfolder** per **project**.
- Every user should **know the folder structure**.
- **Use security features** to ensure only the right people can access secure files.
- Teach your users to **store files on the shared folder**. *You don't want the latest file sitting on someone's hard disk who has gone to lunch and locked their computer.*
- Ensure your IT department or vendor has a plan to **back up the shared data regularly**.

Using shared folders

- OneDrive, Google Drive, Dropbox, Box, Microsoft and others provide solutions for sharing files in the cloud.
  - Advantages
    - You can **access all your files from the internet**.
    - You do **not** need to **send files** via **email**.
    - Depending on the solution and the type of file, your team can **collaborate** / **edit documents on the fly**.
  - Disadvantage
    - You **need to be online to access your files**.
    - Cloud storage can be **hacked**, but **so can your computer**.

- When using such technologies, be sure your **clients** and **stakeholders** are aware and **approve** of the **related risks**.

Website and Project Information

- You can share project information on websites.

- This is **helpful** when there are **many stakeholders**, such as the public, that need to know some information about the project.

- However, this is a **bad idea** if the website is **open to the public** and has **sensitive information**.

Project
Management
Certifications

Project Management Certifications
www.pmi.org

• **Certified Associate in Project Management – CAPM Certification**	**Project Management Professional – PMP Certification**
• <u>Eligible to take exam with:</u>	<u>Eligible to take exam with:</u>
• High school diploma	• High school or associate's degree / bachelor's degree / GAC grad
• 23 hours qualified training	• 35 hours qualified training
• Pass exam (150 Qs / 3 hours)	• 60 mo / 36 mo / 24 mo experience
• Once certified, 15 PDUs every 3 yrs	• Pass exam (180 Qs / 230 minutes)
• Exam fee: $225 (PMI member) or $300	• Once certified, 60 PDUs every 3 yrs
	• Exam fee: $405 (PMI member) or $555

Q & A

Questions & Answers

- How do you troubleshoot a project that is behind schedule?
- How do you hold people accountable?
- How do you deal with conflict between stakeholders?
- Other questions…