

Project Planning and Time Management

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2nd February 2024

Contents

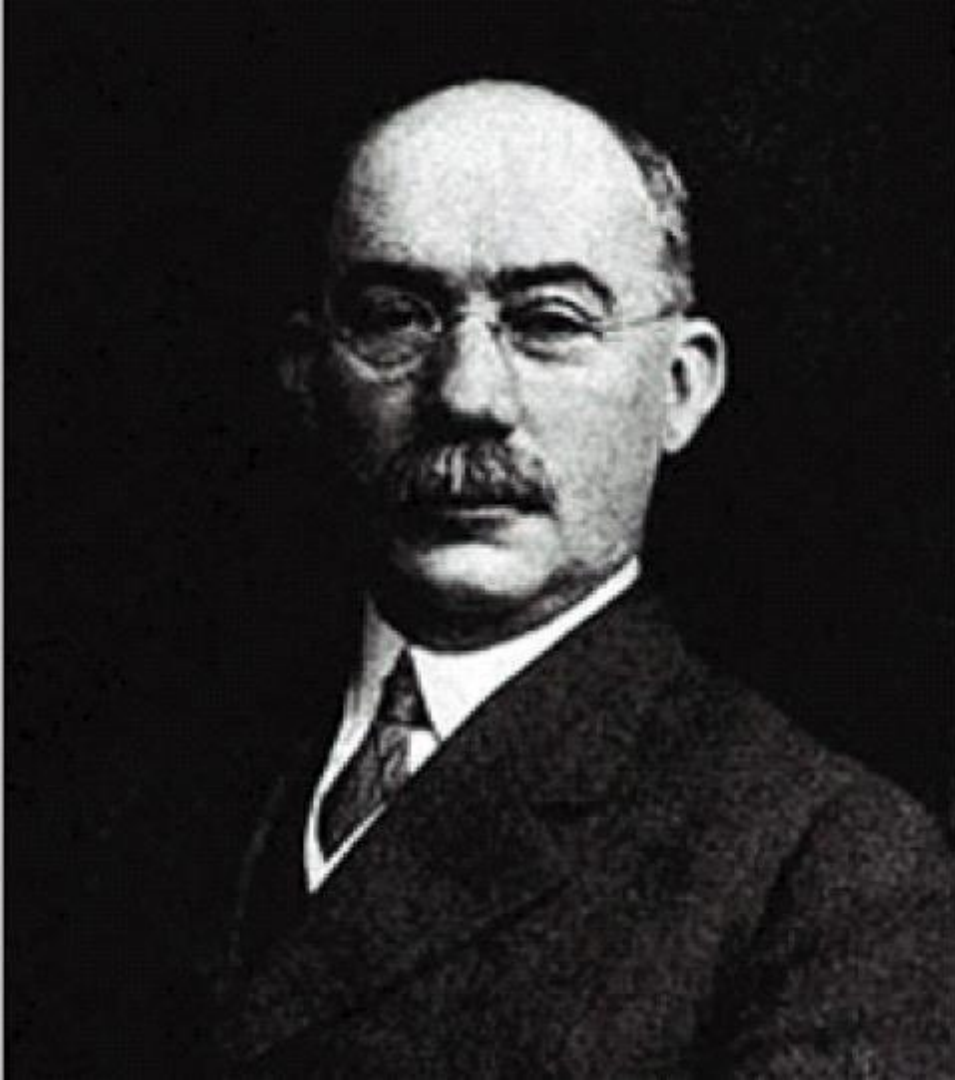
- 01 Gantt Chart
- 02 Pomodoro Technique

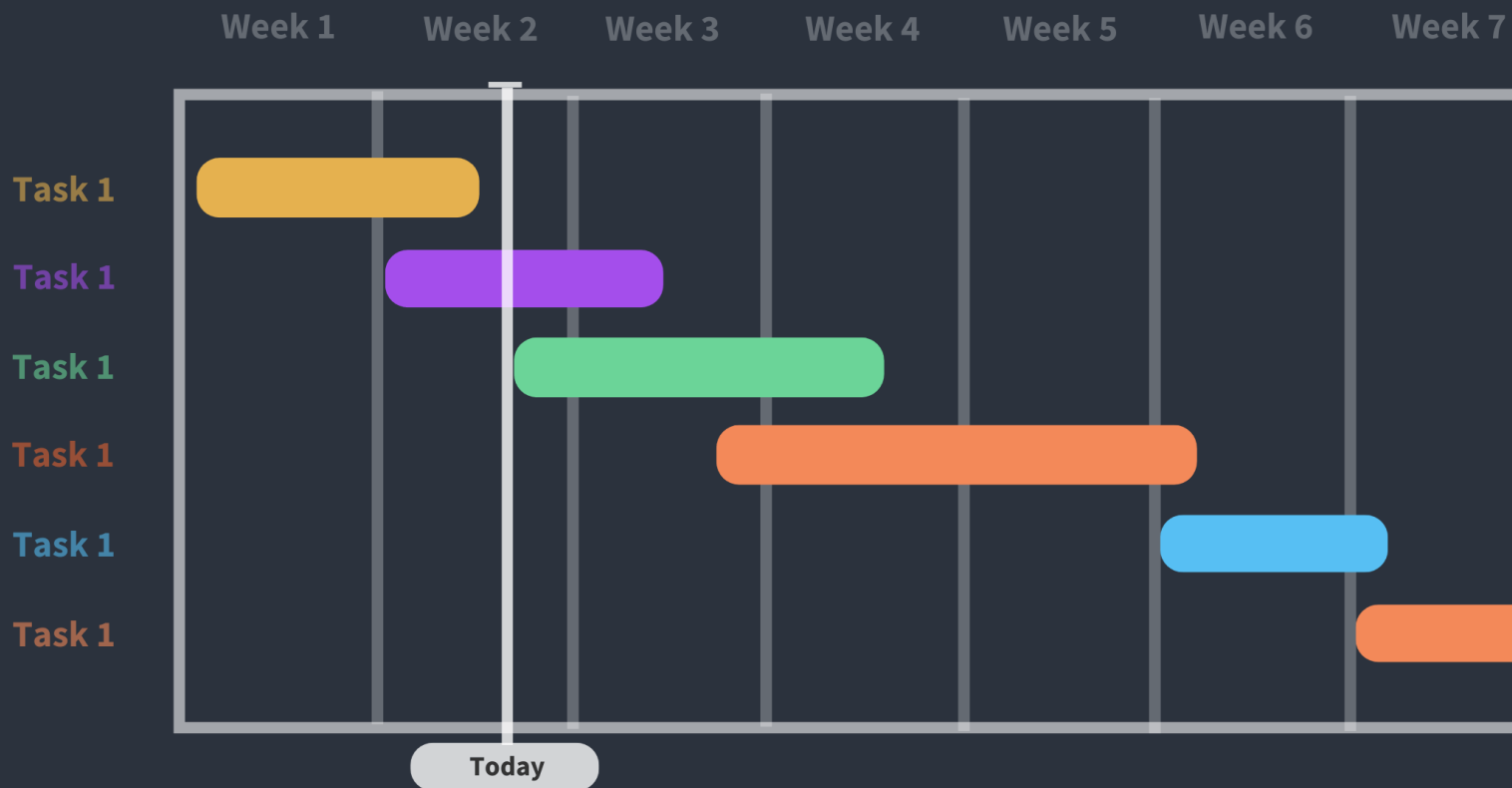
Gantt Chart

- 01 **Gantt Chart**
- 02 Pomodoro Technique

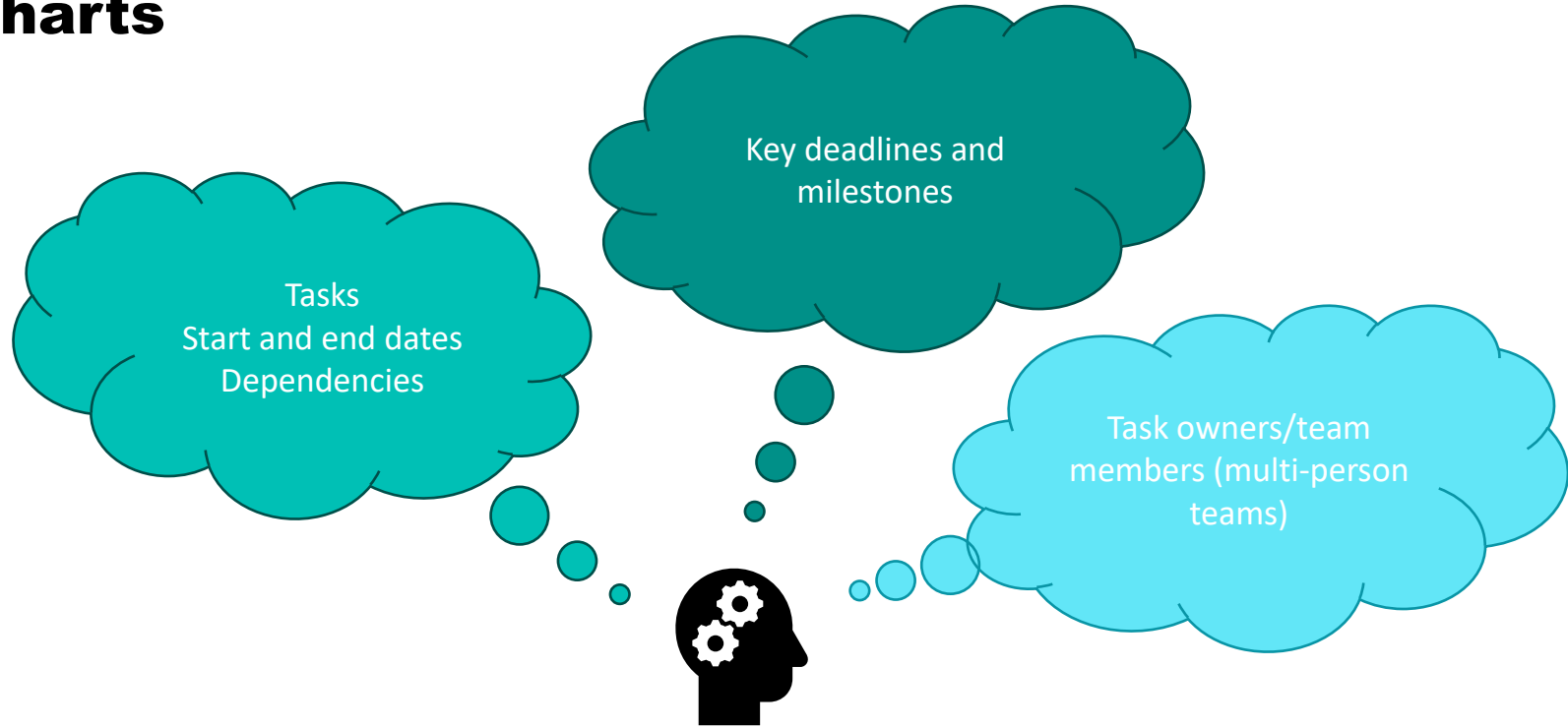


~~DEADLINE~~



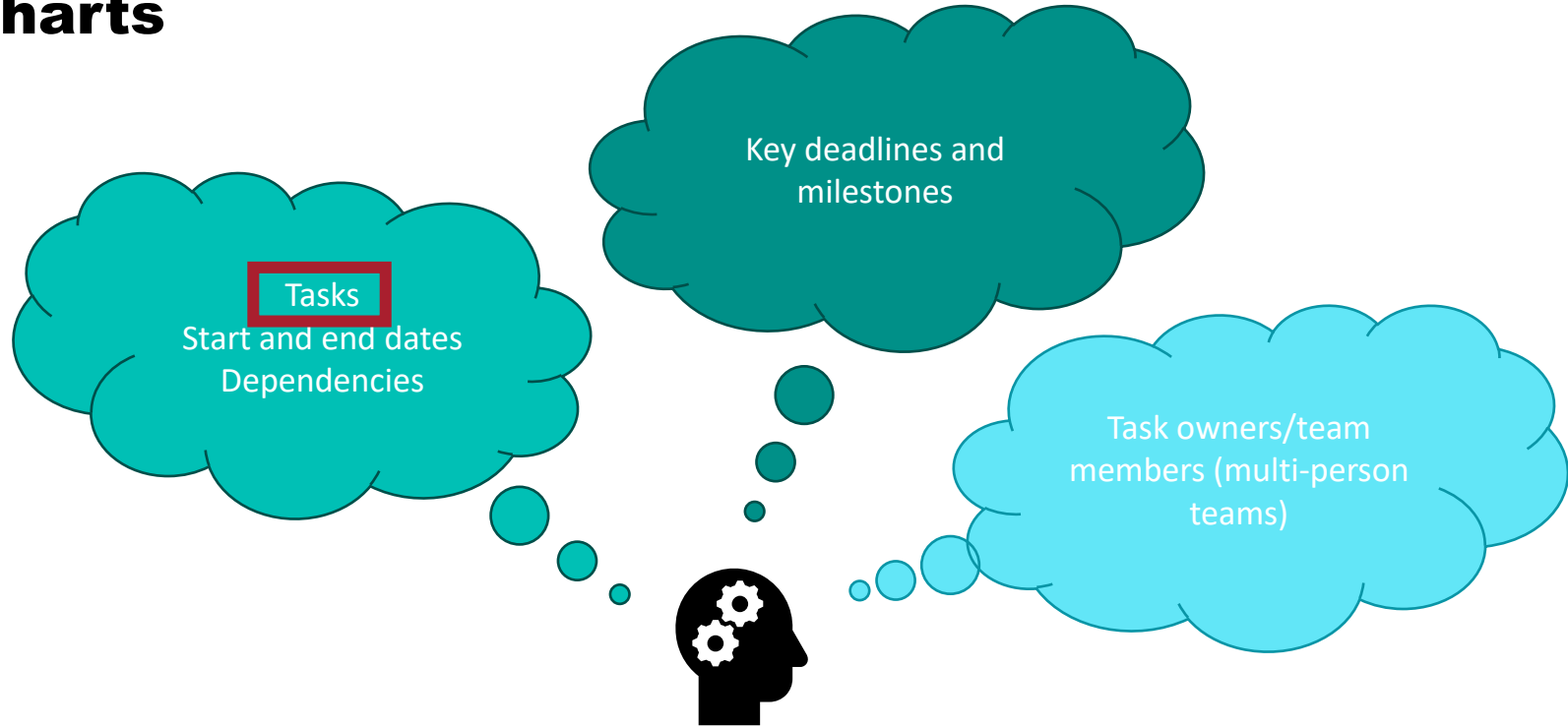


Constructing Gantt Charts





Constructing Gantt Charts



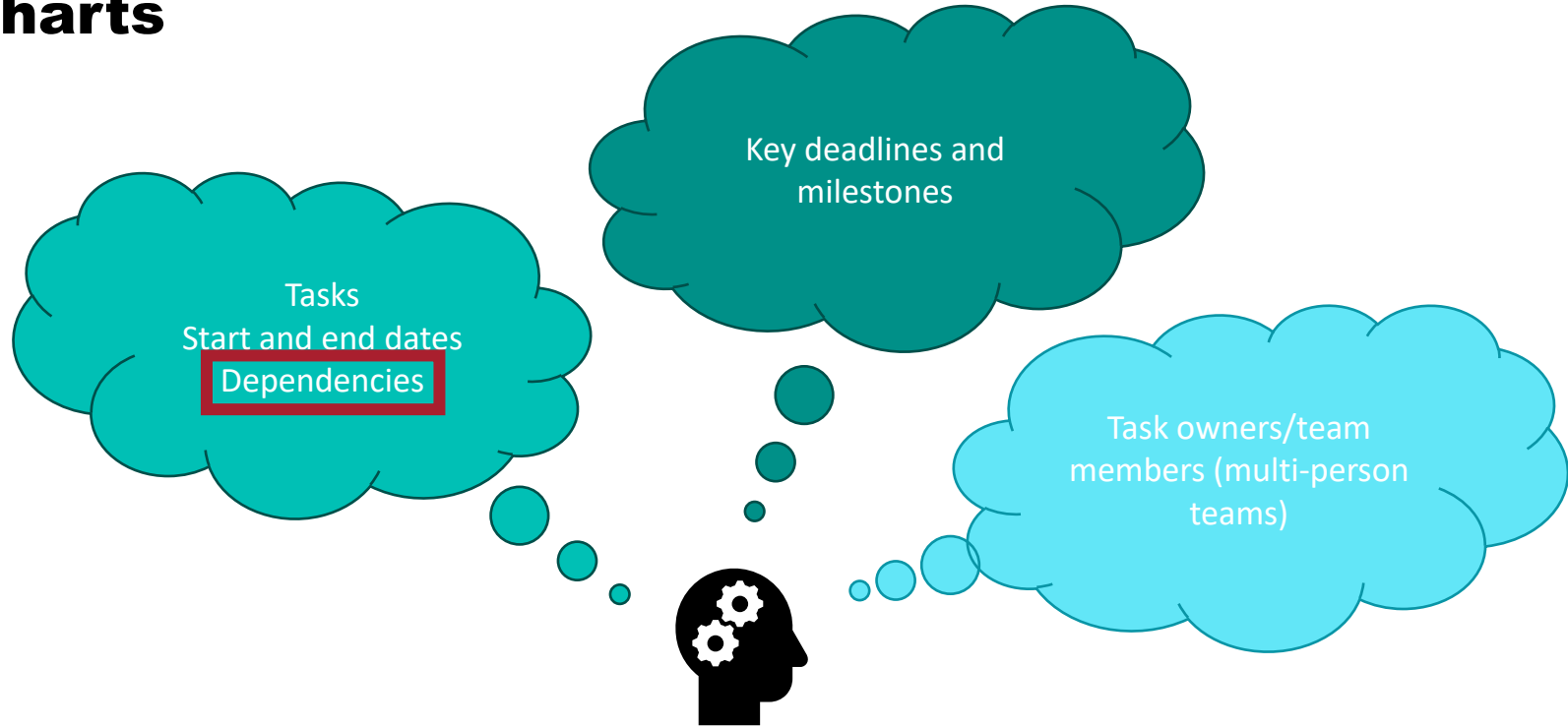
Constructing Gantt Charts: Cooking Spaghetti with Tomato Sauce

Tasks

- List all of the tasks we can think of associated with the project

	A	B	C	D
1	Tasks	Start Time	End Time	Duration
2	Salt water			
3	Boil water			
4	Cook spaghetti			
5	Chop ingredients (onion, celery, tomato, garlic...)			
6	Fry onions and celery			
7	Fry garlic and tomatoes			
8	Add chopped tomatoes			
9	Simmer			
10	Serve!			

Constructing Gantt Charts



Constructing Gantt Charts: Cooking Spaghetti with Tomato Sauce

Dependencies

- Identify tasks we need to complete **before** we can move on to other tasks

	A	B	C	D
1	Tasks	Start Time	End Time	Duration
2	Salt water			
3	Boil water			
4	Cook spaghetti			
	Chop ingredients (onion, celery, 5 tomato, garlic...)			
6	Fry onions and celery			
	Fry garlic and			
7	tomatoes			
	Add chopped			
8	tomatoes			
9	Simmer			
10	Serve!			

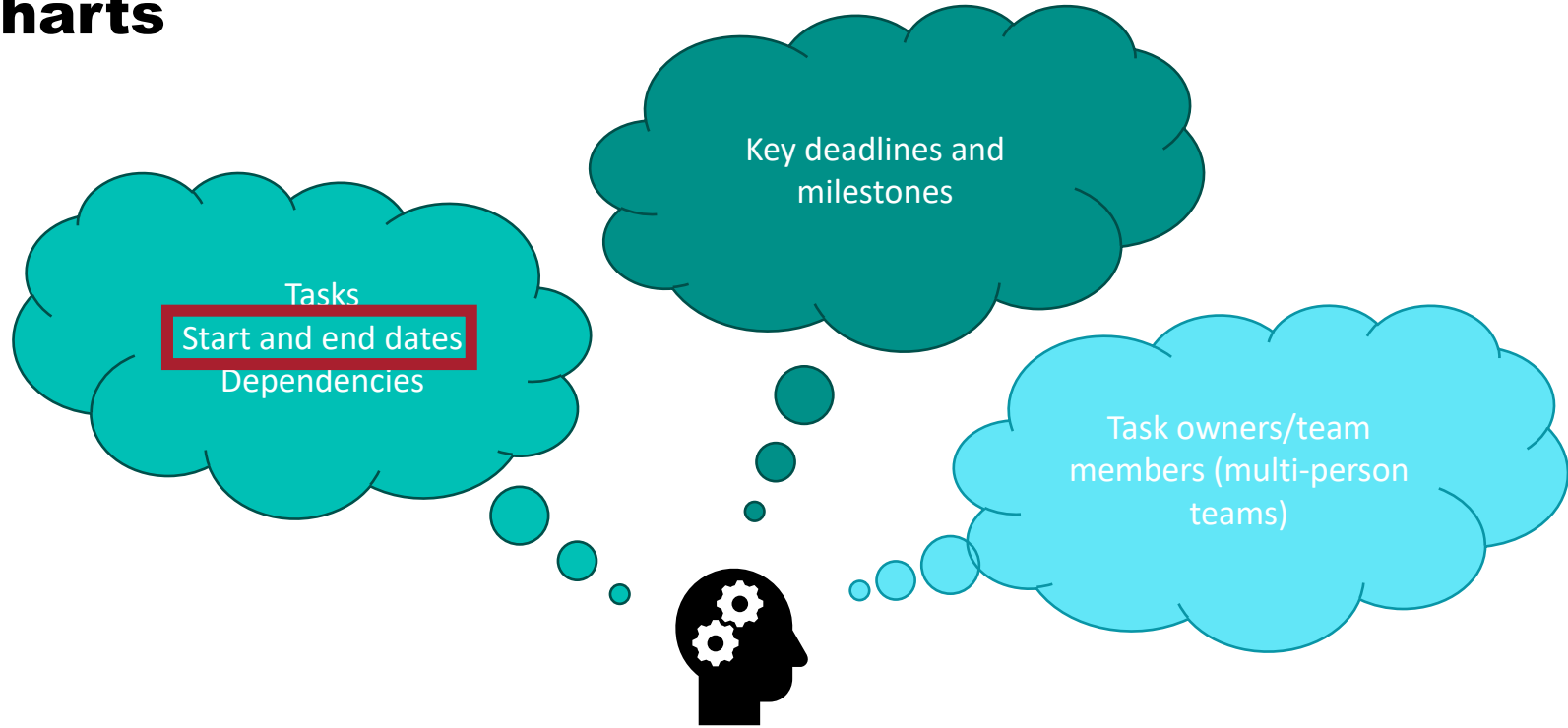
Constructing Gantt Charts: Cooking Spaghetti with Tomato Sauce

Dependencies

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	A	B	C	D
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7	Fry garlic and tomatoes			
8	Add chopped tomatoes			
9	Simmer			
10	Serve!			

Constructing Gantt Charts



Constructing Gantt Charts: Cooking Spaghetti with Tomato Sauce

Estimate duration of each task

- Important to be realistic – don't list how long you would like the task to take!

	A	B	C	D
1	Tasks	Start Time	End Time	Duration
2	Chop ingredients (onion, celery, tomato, garlic...)			00:15
3	Fry onions and celery			00:10
4	Fry garlic and tomatoes			00:02
5	Add chopped tomatoes			00:01
6	Simmer			00:30
7	Salt water			00:01
8	Boil water			00:06
9	Cook spaghetti			00:11
10	Serve!			00:02

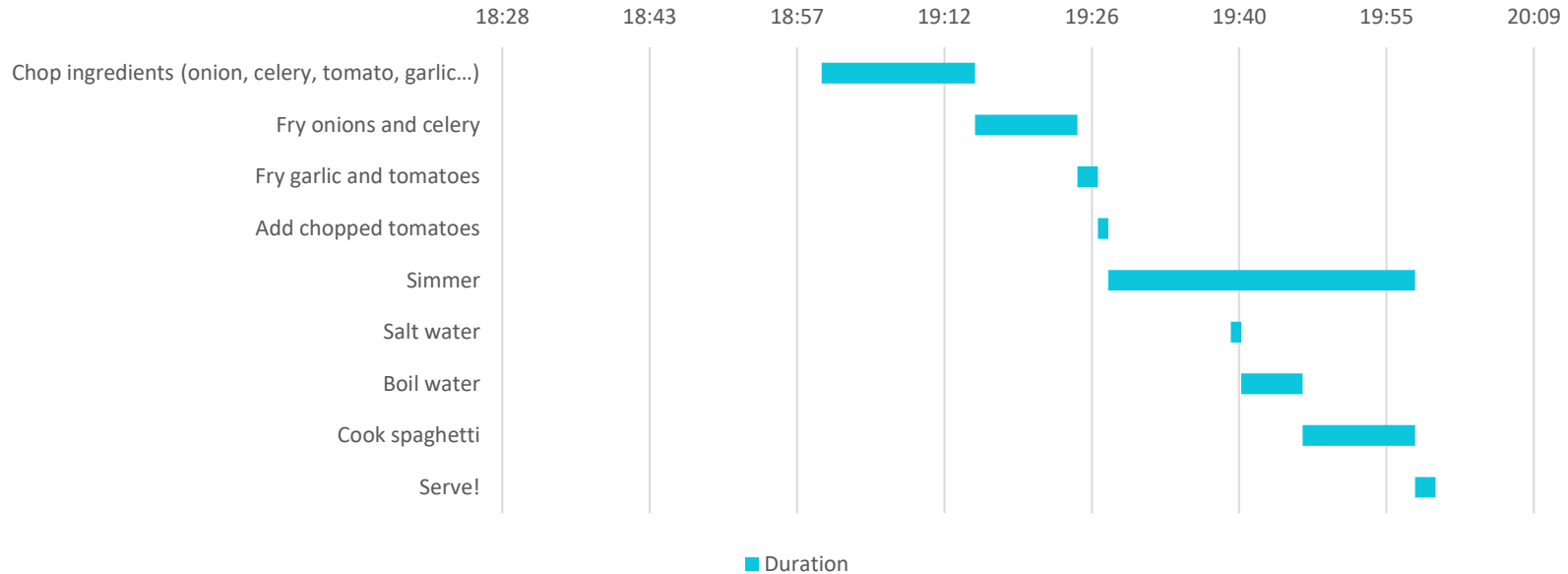
Constructing Gantt Charts: Cooking Spaghetti with Tomato Sauce

Estimate start and end times of each task based on duration

	A	B	C	D
1	Tasks	Start Time	End Time	Duration
2	Salt water	19:40	19:41	00:01
3	Boil water	19:41	19:47	00:06
4	Cook spaghetti	19:47	19:58	00:11
	Chop ingredients (onion, celery, 5 tomato, garlic...)	19:00	19:15	00:15
6	Fry onions and celery	19:15	19:25	00:10
	Fry garlic and 7 tomatoes	19:25	19:27	00:02
	Add chopped 8 tomatoes	19:27	19:28	00:01
9	Simmer	19:28	19:58	00:30
10	Serve!	19:58	20:00	00:02

Plot the Gantt chart

Gantt Chart: cooking spaghetti with tomato sauce



- Compare planned schedule (baseline) with actual progress
- Timeline visualisation: easy to view timeline, tasks, and dependencies

Exercise 1

Creating a basic Gantt chart in Excel!

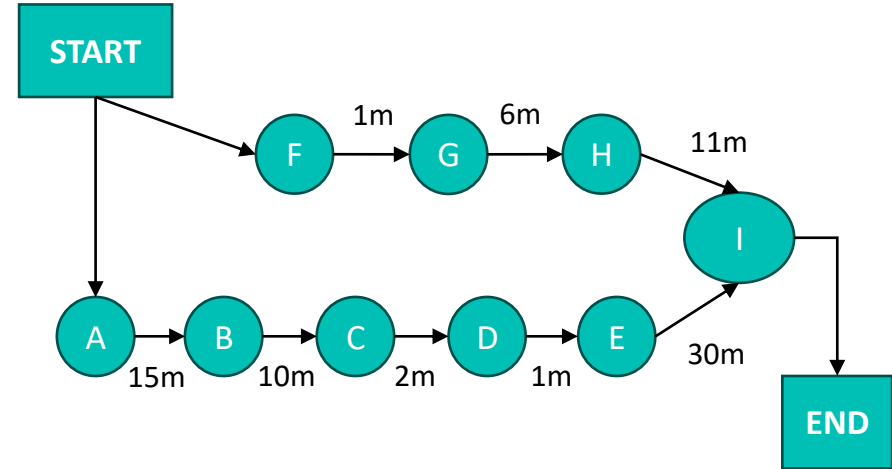
1. List all the tasks
2. Figure out dependencies
3. Determine start and end dates
4. Calculate task duration
5. Plot the Gantt chart

What task should I pick?

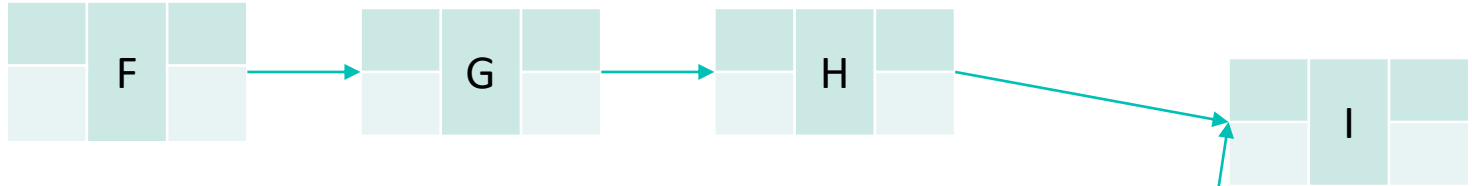
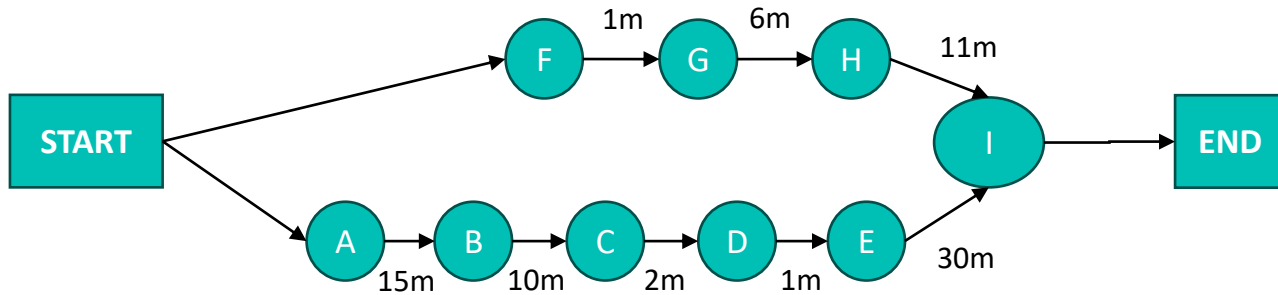
- A specific piece of coursework
- Managing coursework deadlines across the term
- A personal project
- Dissertation project

Critical path analysis

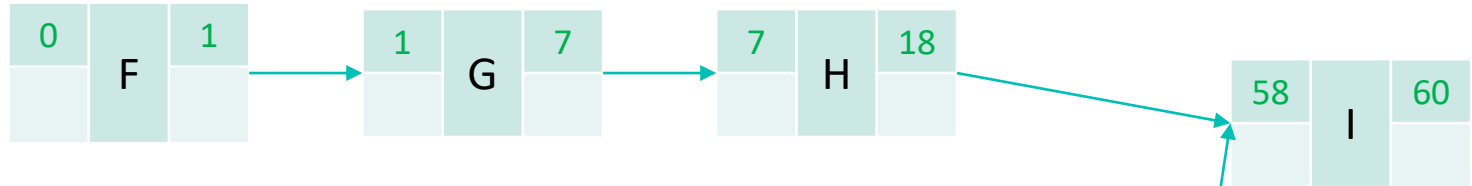
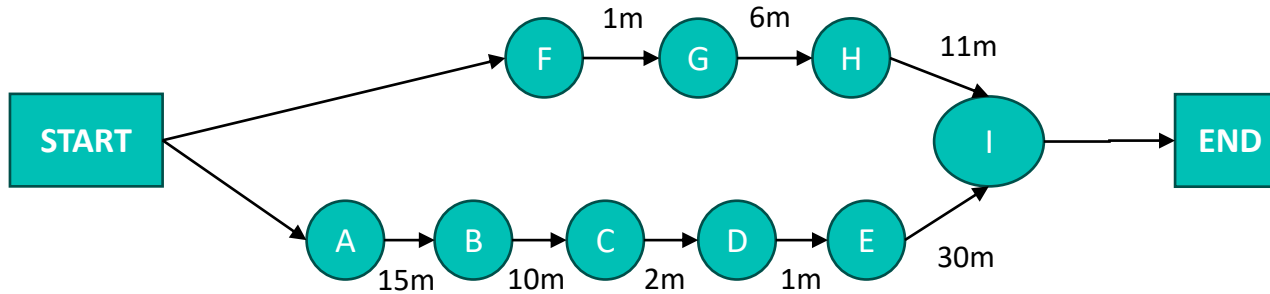
	A	B	C	D	E
1	Label	Tasks	Start Time	Duration	End Time
2	A	Chop ingredients (onion, celery, tomato, garlic...)	19:00	00:15	19:15
3	B	Fry onions and celery	19:15	00:10	19:25
4	C	Fry garlic and tomatoes	19:25	00:02	19:27
5	D	Add chopped tomatoes	19:27	00:01	19:28
6	E	Simmer	19:28	00:30	19:58
7	F	Salt water	19:40	00:01	19:41
8	G	Boil water	19:41	00:06	19:47
9	H	Cook spaghetti	19:47	00:11	19:58
10	I	Serve!	19:58	00:02	20:00



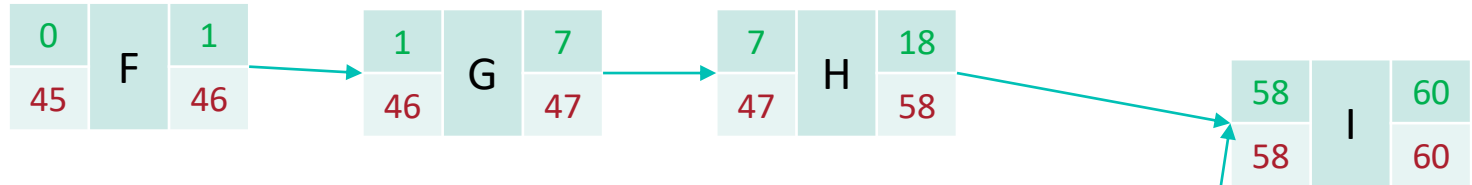
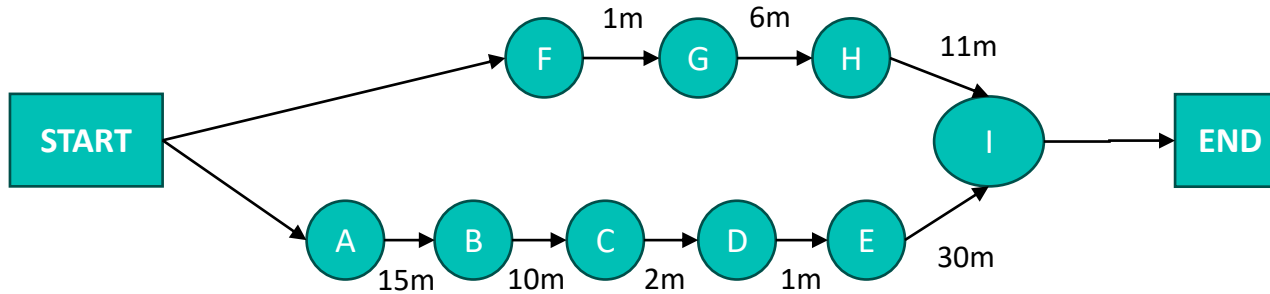
Critical path analysis



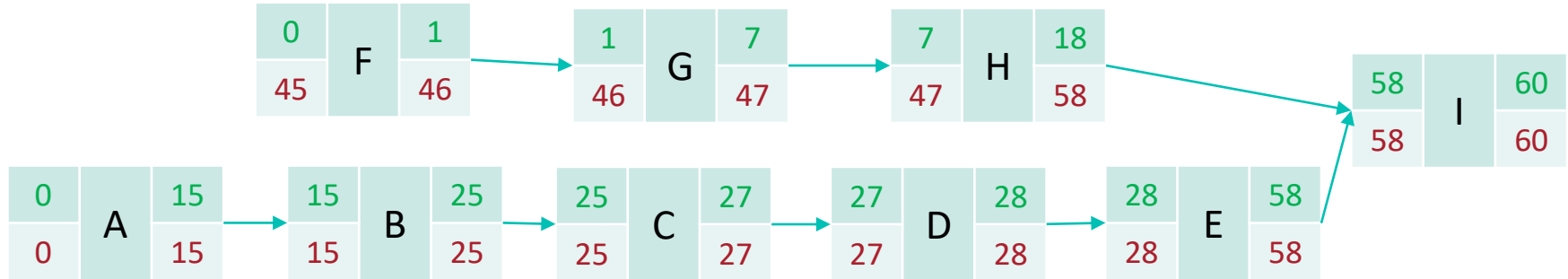
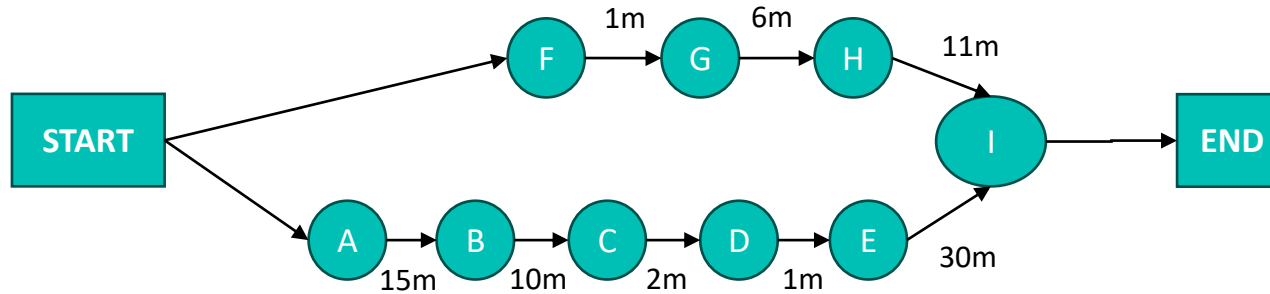
Critical path analysis



Critical path analysis



Critical path analysis



Critical Path: A → B → C → D → E → I

Gantt chart summary



- Identify the critical path of a project
- Compare progress with schedule
- Easily visualise project timelines
- Identify tasks to complete, and dependencies, at a glance
- Good project overview!
- How to complete these tasks? How to manage daily workload?

Pomodoro Technique

- 01 Gantt Chart
- 02 **Pomodoro Technique**







The Pomodoro Technique

What actually is a pomodoro?



The Pomodoro Technique

Pomodoro after pomodoro



4 x pomodoro = 1 block

Pomodoro Process

What	When	Why
Planning	At the start of the day	To decide on the day's activities
Tracking	Throughout the day	To gather data about effort and achievement
Recording	At the end of the day	Build an archive of observations
Processing		Analyse data, and get information
Visualising		Present information in a format so that we can improve our skills

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Planning the Day

- List of everything that we need to do – in no particular order.

The Activity Inventory Sheet

Date	Time	Activity	Est PD	Actual PD

Planning the Day

- List of everything that we need to do – in no particular order.

The Activity Inventory Sheet

Date	Time	Activity	Est PD	Actual PD
		Review CNN outputs and loss function plots, integrate to PP		
		Test trained CNN models on validation data, write results up in PP		
		Revise material to design new CNN models		

Planning the Day

- List of everything that we need to do – in no particular order.

The Activity Inventory Sheet

Date	Time	Activity	Est PD	Actual PD
		Review CNN outputs and loss function plots, integrate to PP	1	
		Test trained CNN models on validation data, write results up in PP	1	
		Revise material to design new CNN models	2	

The Pomodoro Technique

What actually is a pomodoro?



Nothing smaller than a pomodoro

Planning the Day

- List of everything that we need to do – in no particular order.

The Activity Inventory Sheet

Date	Time	Activity	Est PD	Actual PD
		Review CNN outputs and loss function plots, integrate to PP	1	
		Test trained model CNN models on validation data, write results up in PP	1	
		Revise material to design new CNN models	2	

- No tasks longer than 5-7 pomodoros!

Planning the Day

To Do Today sheet

Activity	Record	Est PD	Actual PD

Planning the Day

To Do Today sheet

- Fill out before you start working, every single day!

Activity	Record	Est PD	Actual PD

Planning the Day

To Do Today sheet

- Fill out before you start working, every single day!

Activity	Record	Est PD	Actual PD
Review CNN outputs and loss function plots, integrate to PP		1	
Test trained model CNN models on validation data, write results up in PP		1	
Revise material to design new CNN models		2	





If it's your job to eat a frog, it's best to do it first thing in the morning. And If it's your job to eat two frogs, it's best to eat the biggest one first.

Mark Twain

Estimated timetable

8-hour workday

Time	Pomodoro Block
08:00 – 10:00	1
10:30 – 12:30	2
13.30 – 15:30	3
16:00 – 18:00	4

7-hour workday

Time	Pomodoro Block
08:00 – 10:00	1
10:30 – 12:00	2
13.00 – 15:00	3
15:30 – 17:00	4

Planning the Day

To Do Today sheet

- Fill out before you start working, every single day!

Activity	Record	Est PD	Actual PD
Review CNN outputs and loss function plots, integrate to PP		1	
Test trained model CNN models on validation data, write results up in PP		1	
Revise material to design new CNN models		2	

Pomodoro Process

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Pomodoro Process



Activity	Record	Est PD	Actual PD
Review CNN outputs and loss function plots, integrate to PP		1	
Test trained model CNN models on validation data, write results up in PP		1	
Revise material to design new CNN models		2	

Pomodoro Process



Activity	Record	Est PD	Actual PD
Review CNN outputs and loss function plots, integrate to PP	X	1	
Test trained model CNN models on validation data, write results up in PP		1	
Revise material to design new CNN models		2	

Pomodoro Process



Activity	Record	Est PD	Actual PD
Review CNN outputs and loss function plots, integrate to PP	XX	1	
Test trained model CNN models on validation data, write results up in PP		1	
Revise material to design new CNN models		2	

Pomodoro Process



Activity	Record	Est PD	Actual PD
Review CNN outputs and loss function plots, integrate to PP	XX	1	2
Test trained model CNN models on validation data, write results up in PP		1	
Revise material to design new CNN models		2	

Pomodoro Process



Activity	Record	Est PD	Actual PD
Review CNN outputs and loss function plots, integrate to PP	XX	1	2
Test trained model CNN models on validation data, write results up in PP	X	1	1
Revise material to design new CNN models	XXX	2	3

Pomodoro Process

What	When	Why
Planning	At the start of the day	To decide on the day's activities
Tracking	Throughout the day	To gather data about effort and achievement
Recording	At the end of the day	Build an archive of observations
Processing		Analyse data, and get information
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Key Rules



1. A pomodoro consists of 25 minutes + 5 minute break
2. After every four pomodoros is a 15-30 minute break
3. The pomodoro is an atomic unit of time and cannot be divided
4. If more than 5-7 pomodoros, break it down!
5. If less than 1 pomodoro, add it up!

Key Rules



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4. If more than 5-7 pomodoros, break it down!
5. If less than 1 pomodoro, add it up!
6. **An interrupted pomodoro is an invalid pomodoro**
7. **If the pomodoro begins, it must ring.**



Managing Interruptions



Internal Interruptions

“I need to get a drink.”/“I’m hungry.”

“I should call Dave back.”

“I need to debug my code for the lab class.”

“I need to check a deadline.”

External Interruptions

“Would you like to come and get some food?”

“Hey, call me back!”

“Could you go over the answer to XYZ?”

Managing Interruptions

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Test trained CNN models on validation data, write results up in PP	'	1	
Revise material to design new CNN models		2	
URGENT AND UNPLANNED			
Debug code for lab class			

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“I need to get a drink.”/“I’m hungry.”

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External Interruptions

“Would you like to come and get some food?”

“Hey, call me back!”

“Could you go over the answer to XYZ?”

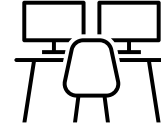
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Managing Interruptions

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Test trained model CNN models on validation data, write results up in PP	“-	1	
Revise material to design new CNN models		2	
URGENT AND UNPLANNED			
Debug code for lab class			
Call Dave back			
Get some food with a friend			

Summary

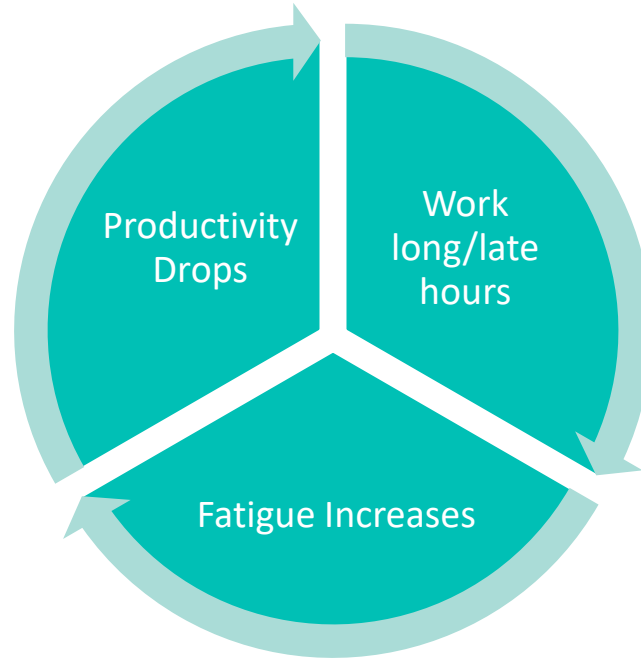


- Mark internal interruptions with an apostrophe
- Mark external interruptions with a dash
- Reschedule interruptions for your short/long breaks (depending on how long they might take), or even make specific pomodoros for them!
- Or add interruptions to your Activity Inventory sheet to complete them on another day



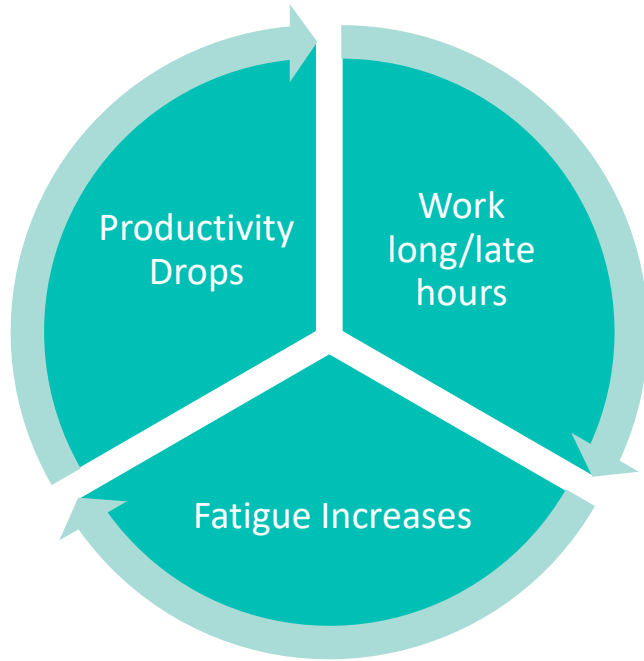


Don't forget to rest!



The Burnout Cycle

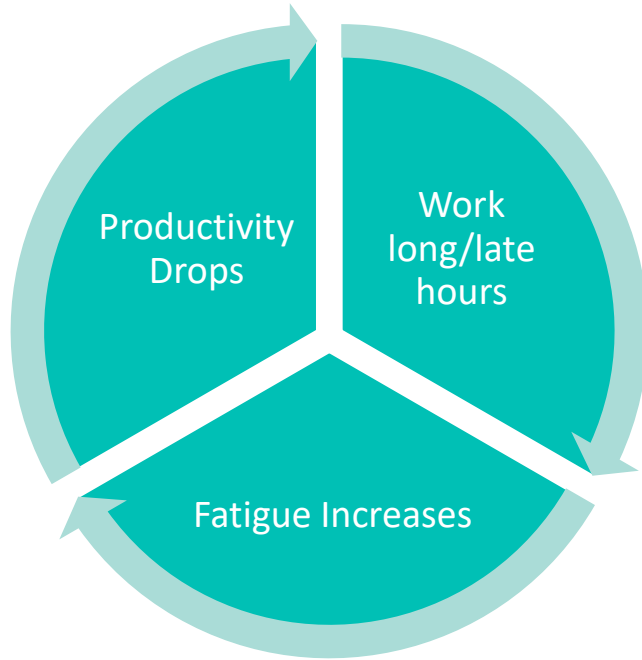
Don't forget to rest!



The Burnout Circle

Set a cut-off period after which you do no work!

Don't forget to rest!



The Burnout Cycle

Set a cut-off period after which you do no work!

Timetables:

- 8.00-10.00, 10.30-12.30, 13.30-15.30, 16.00-18.00; **no work after 6pm!**
- 11.00-13.00, 14.00-16.00, 16.30-18.30, 19.00-21.00; **no work after 9pm!**

Managing Overtime



- Overtime and extra hours can be used to momentarily increase productivity
- To avoid the burnout spiral, try not to work overtime for more than five days
- Establish an ad-hoc timetable for this period
- Set aside recovery time (a drop in productivity will likely follow this overtime)



Summary



1. A pomodoro consists of 25 minutes + 5 minute break
2. After every four pomodoros is a 15-30 minute break
3. The pomodoro is an atomic unit of time and cannot be divided
4. If more than 5-7 pomodoros, break it down!
5. If less than 1 pomodoro, add it up!
- 6. An interrupted pomodoro is an invalid pomodoro**
- 7. If the pomodoro begins, it must ring.**
8. Results come pomodoro after pomodoro.
9. The next pomodoro will be better.

Resources



- Presentation
- Excel Gantt chart
- Activity Inventory Sheet
- To Do Today sheet
- Pomodoro Technique summary notes