

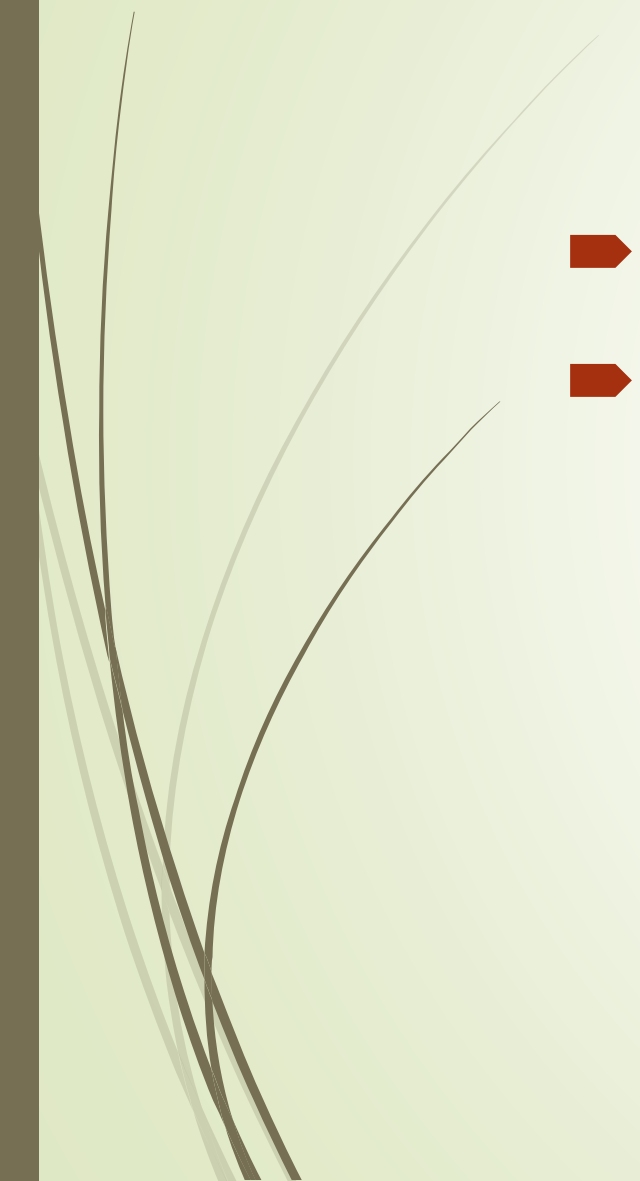



ISYS90050 IT Project and Change Management

Tutorial 5



Activity 1 Task 1: Identify travel origin

- Pick a Melbourne location
 - Describe how you might travel to University of Melbourne from this location?
- 



Activity 1 Task 2: Travel from source to destination

➡ How might you travel?



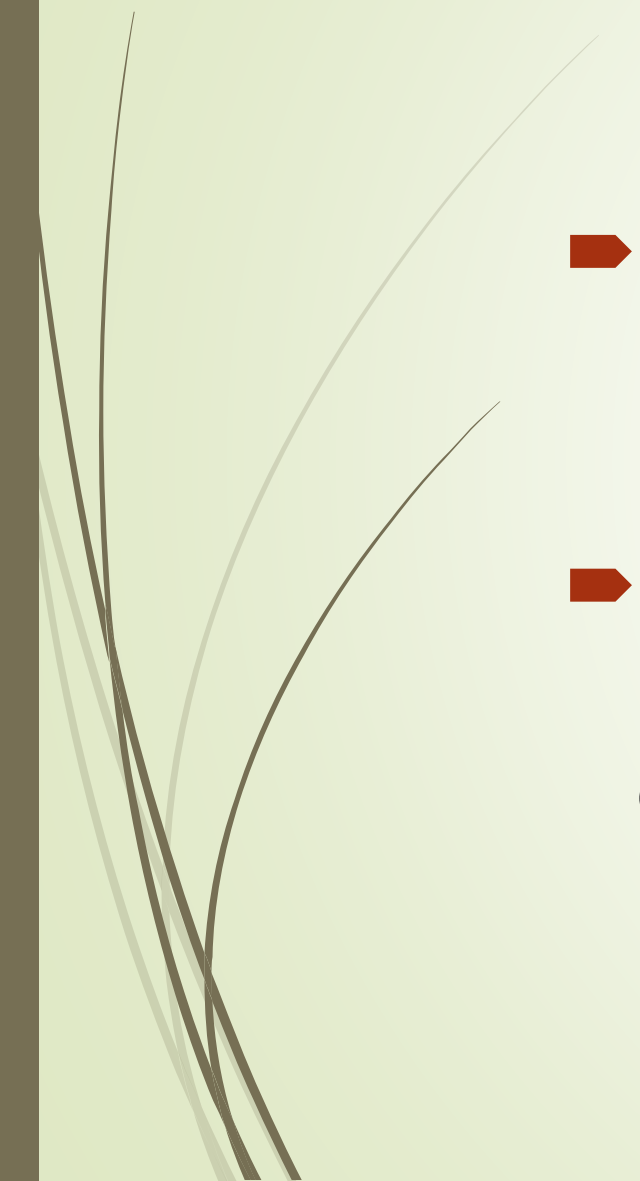


Activity 1 Task 3: Individual estimate of travel time

- Estimated time and assumptions
- 




Activity 1 Task 4: Scenarios

- Scenario 1 – You are travelling to the University to attend a tutorial (or) a lecture.
 - Scenario 2 – You are travelling to the University to attend one of your final exams in the semester.
- 



Activity 1 Task 5: Compare and discuss

- Any difference? Why?
- What additional situations considered?
- Factors not in your control?



Activity 1 Task 6: Test of estimate

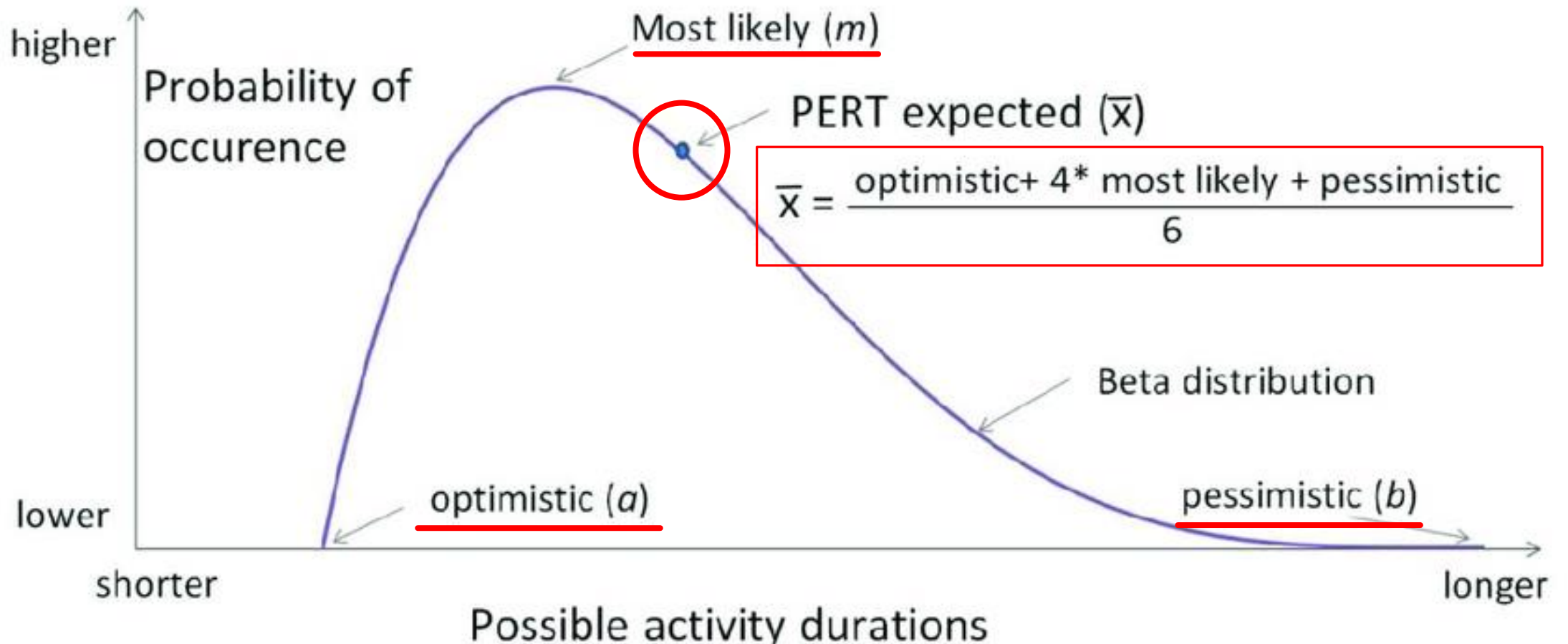
- How to test? How valid is your test?
- Can the estimate be improved?

Activity 2 Task 1: Expected Duration of Tasks

| Task ID | Optimisitic Time (a) | Pessimisitic Time (b) | Most likely Time (m) |
|---------|----------------------|-----------------------|----------------------|
| A | 3 | 6 | 4 |
| B | 1 | 3 | 2 |
| C | 4 | 7 | 6 |
| D | 2 | 5 | 3 |
| E | 3 | 9 | 6 |
| F | 3 | 8 | 4 |

$$\text{Expected time} = (a + 4m + b) / 6$$

Expected time = $(a + 4m + b) / 6$



Activity 2 Task 2: PERT

| Task ID | Description | Duration | Dependent on: |
|---------|-----------------------------------|----------|---------------|
| A | Prototype user interface | 10 days | - |
| B | Design file structures | 2 days | A |
| C | Define interfaces | 3 days | B |
| D | Define/test compression algorithm | 5 days | B |
| E | Define coding standards | 5 days | - |
| F | Devise test plan | 5 days | B |
| G | Prepare test cases and data | 5 days | F |
| H | Review phase deliverables | 2 days | C, E, G, D |

START

PERT Reference Block

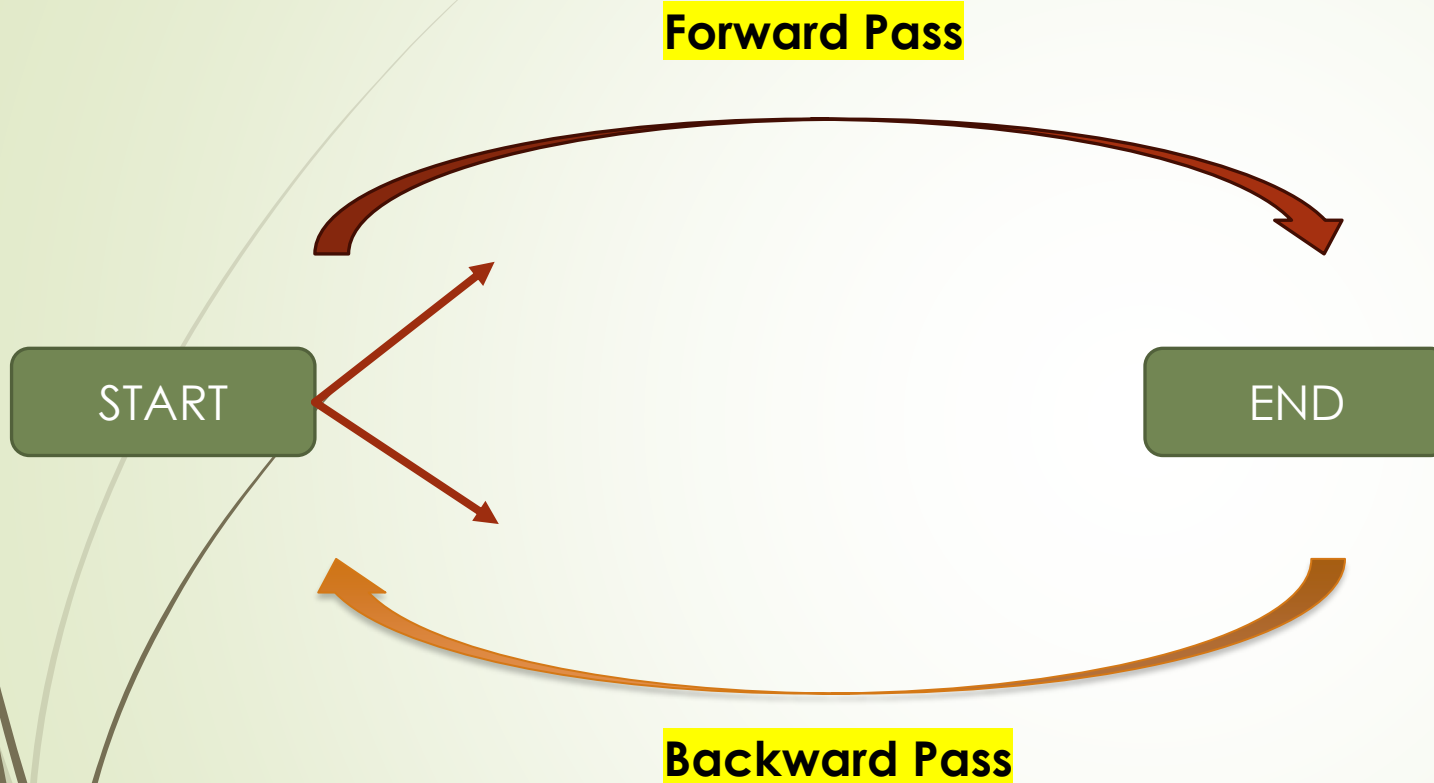
Forward Pass

| Task | Earliest Start (ES) | Earliest Finish (EF) |
|----------|------------------------|-------------------------|
| Duration | Latest Start (LS) | Latest Finish (LF) |

Backward Pass

END

Activity 2 Task 2: PERT



$$EF = ES + \text{time}$$
$$LS = LF - \text{time}$$

PERT Reference Block

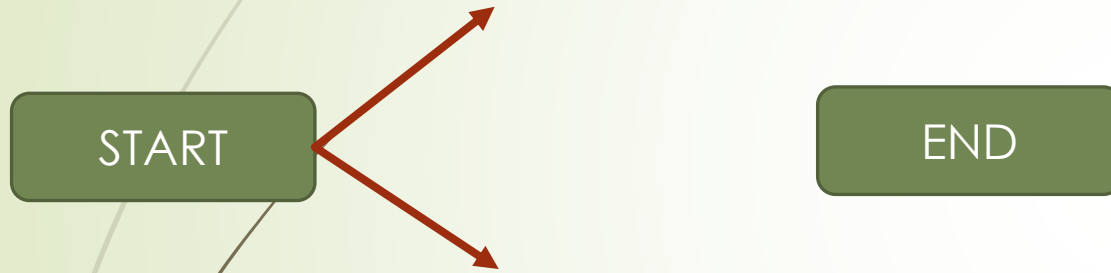
| Task | Forward Pass | |
|----------|---------------------|----------------------|
| | Earliest Start (ES) | Earliest Finish (EF) |
| Duration | Latest Start (LS) | Latest Finish (LF) |



How to find the critical path?

- The activities that have a path from start to finish with **slack = 0** gives you the critical path.

Activity 2 Task 2: Slack



PERT Reference Block

| | | |
|----------|------------------------|-------------------------|
| Task | Earliest Start (ES) | Earliest Finish (EF) |
| Duration | Latest Start (LS) | Latest Finish (LF) |

Slack

$$\text{Slack or float} = \text{LS} - \text{ES} \text{ (or) } \text{LF} - \text{EF}$$

START

| | | |
|----------|-----|-----|
| A | ES: | EF: |
| D: 10 | LS: | LF: |

| | | |
|---------|-----|-----|
| B | ES: | EF: |
| D: 2 | LS: | LF: |

| | | |
|---------|-----|-----|
| D | ES: | EF: |
| D: 5 | LS: | LF: |

| | | |
|---------|-----|-----|
| C | ES: | EF: |
| D: 3 | LS: | LF: |

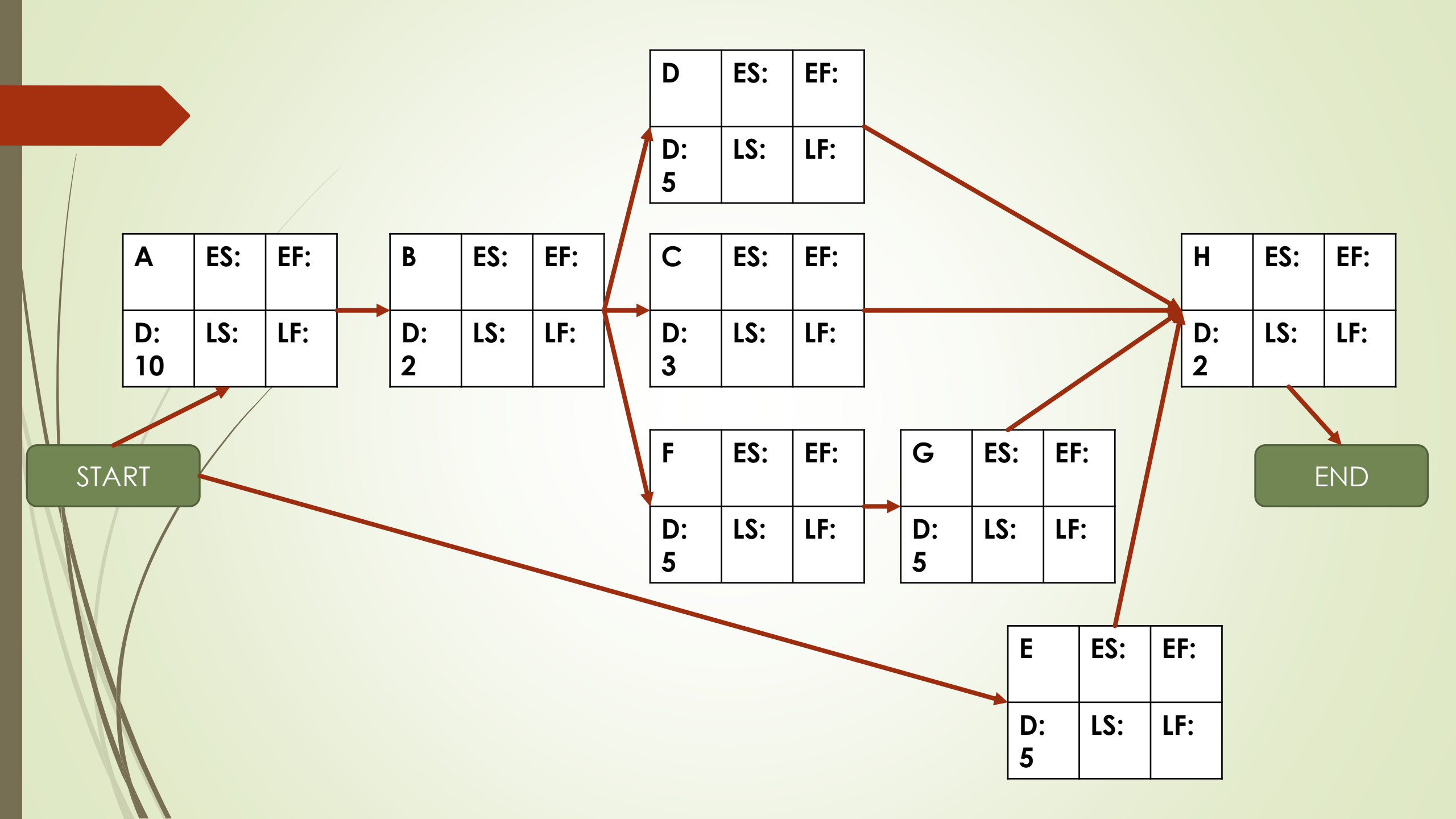
| | | |
|---------|-----|-----|
| F | ES: | EF: |
| D: 5 | LS: | LF: |

| | | |
|---------|-----|-----|
| G | ES: | EF: |
| D: 5 | LS: | LF: |

| | | |
|---------|-----|-----|
| H | ES: | EF: |
| D: 2 | LS: | LF: |


| | | |
|---------|-----|-----|
| E | ES: | EF: |
| D: 5 | LS: | LF: |

END






Activity 2 Task 3: Critical Path Change due to Task Delay

- How will the critical path of the project get affected if Task C gets delayed by 3 days?
 - Slack of Task C?
- 



Activity 2 Task 4: Critical Path Change due to Task Delay

- How will the critical path of the project get affected if Task C gets delayed by 8 days?
 - Slack of Task C?
- 



Tutorial Quiz!

- ➡ You have 5 mins to complete the quiz