NEW PROJECT / CCS-006

Courtyard cycle shelter

A simple programme for learning activities, logic and the critical path.



Fictional project. AI-generated illustration.

THE PROJECT

Create covered cycle parking in an existing office courtyard. Prepare the site, install precast pads and fabricate the frame off site. Then erect the shelter, fit cycle stands and inspect the completed work.

6 ACTIVITIES / 2 SCENARIOS

Enter the logic. Schedule the work. Investigate what changes the finish.

Activity ID	Activity name	Duration	FS predecessor(s)
A100	Clear and set out site	1 day	None
A200	Install precast foundation pads	3 days	A100
A300	Fabricate shelter frame off site	4 days	A100
A400	Erect frame and fit roof	2 days	A200, A300
A500	Install cycle stands	1 day	A400
A600	Inspect and hand over	1 day	A500

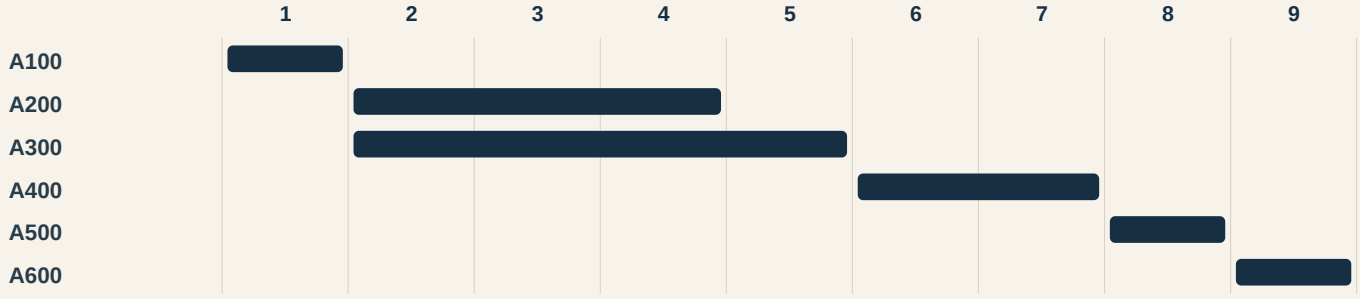
CHECK BEFORE YOU SCHEDULE

Six Task Dependent activities. One Monday-Friday calendar: 8 hours/day, no holidays. All links are Finish-to-Start (FS), zero lag. A200 and A300 use separate crews and can run in parallel.

Use the tutor-selected project start and matching Data Date. No constraints, actuals or resource levelling. Treat the pad installation method as immediately ready for erection; no curing activity is required.

ORIGINAL PROGRAMME

Working days from the project start; weekends excluded



In P6: enter the activities and links, schedule, then identify the critical path and Total Float. Keep the original results before testing the two independent scenarios.

SCENARIO 01 / INCREASE A DURATION

When the ground slows the work



Fictional scenario. AI-generated illustration.

THE SITE SITUATION

Before work begins, the site supervisor reviews the courtyard ground investigation and finds soft material beneath several proposed foundation positions. Extra excavation, compacted stone and repeated level checks will be needed before the precast pads can be installed safely. The supervisor therefore revises A200, Install precast foundation pads, from 3 to 6 working days. Off-site frame fabrication can still proceed as planned, and no other duration or relationship changes. Update only A200, schedule the project and explain the effect on the completion date. Which activities are now critical, what Total Float remains on A300, and is the project delay equal to the added activity duration? Explain your reasoning.

A200 | Original Duration: 3 days → 6 days | Add 3 working days

Start with the original programme on page 1. Change only A200; leave all other settings unchanged.

RECORD YOUR FINDINGS

New finish date: _____ Change from original: _____ working days

Critical path: _____

A300 Total Float: _____ days | Explain what controls the project finish:

SCENARIO 02 / REDUCE A DURATION

Can a faster workshop help?



Fictional scenario. AI-generated illustration.

THE SITE SITUATION

Consider a separate proposal using the original programme, with the ground problem removed. The fabrication manager offers an additional workshop team and a dedicated assembly bay for the shelter frame. Materials and approved dimensions are already available, so the team can reduce A300, Fabricate shelter frame off site, from 4 to 2 working days without changing the scope or quality checks. All other durations and relationships remain unchanged. Restore the original programme, update only A300 and schedule again. How much earlier can the shelter be handed over? Identify the revised critical path and explain whether the full two-day activity saving is reflected in the project finish.

A300 | Original Duration: 4 days → 2 days | Reduce by 2 working days

Independent case: restore A200 to 3 days and A300 to 4 days first. Then change only A300 to 2 days.

RECORD YOUR FINDINGS

New finish date: _____ Change from original: _____ working days

Critical path: _____

A300 Total Float: _____ days | Explain what controls the project finish: