Gantt charts, budgets and contracts

MODULE 4 | PART D.1 | STUDENT COMPANION

Project planning steps

1. Describe
Activities and tasks in detail, with resources and responsibilities

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2. Develop
The project budget and schedule from the work plans

→

3. Decide
How to monitor: when, how often, what reports, to whom

→

4. Complete
Prepare for the project's completion

The management accountant leads on budgeting, scheduling and cost optimisation

Design monitoring and performance measures at the planning stage, so team members know how they will be judged; the project contract often provides the framework. Scheduling links time and cost, so cost optimisation must be tied to the schedule.

Reading a Gantt chart



Imagined school sports hall: if the ship is late, every navy bar slips; overlapping bars run at the same time

Gantt charts: features and limits

Feature	Detail
Layout	Tasks down the side in rough order; bars from start to finish date along a time scale
Extras	Actual dates, milestones, colour for late or critical tasks, budget per period on the right
Strengths	Simple to understand, build and update; good for expediting, sequencing and reallocating resources
Limits	Complex projects need network analysis (PERT) for dependencies, critical path and slack

The project budget

Topic	Remember
Four functions	Allocate (approval = approving resources); control through variances; main benchmark of financial success; deters overspending
Estimate versus budget	A budget adds time - costs per week, month or quarter, ideally by activity and milestone
Content	Usually costs only; revenues and cash flows in separate budgets; capture the project separately in the accounts
Overheads	Allocating costs the team cannot control clouds the evaluation
Uncontrollable change	A revised budget is the fairer benchmark
Controllable change	The original budget stays the benchmark; a revised budget may still guide cash and cost control

Supplier contracts and control

Contract type	Who carries cost risk	What the management accountant watches
Fixed price	Supplier	Quality and timing (supplier cannot pass on overruns)
Payment for work done (hours or days)	Buyer	Hours and costs, plus quality and time
Cost-plus	Buyer	Supplier's cost records against the contract; exclude non-reimbursable costs
Bonuses and profit-sharing (e.g. target cost)	Shared	Whether incentives cut cost and time without heavy administration

Snowy 2.0 moved from a fixed price to an incentivised target-cost contract in 2023

Case notes

Fixed price - the supplier's risk: Boeing's fixed-price contract to develop the US Air Force's KC-46 tanker made Boeing responsible for costs above US$4.9 billion; by early 2022 its losses on the program exceeded US$5.4 billion. **Changing the contract:** in August 2023 Snowy Hydro moved Snowy 2.0's main contract from a fixed price to an incentivised target-cost model; in October 2026 its chief executive said a fixed price had never suited a project of that scale.

Sources: Air & Space Forces Magazine, January 2022; Snowy Hydro announcement, 31 August 2023; The Nightly, 23 October 2026.

Practice questions

MODULE 4 | PART D.1 | TRY THESE BEFORE THE WORKED ANSWERS

Question 1 - Read the plan

A railway operator is installing ticket kiosks at five stations (imagined). (a) Which activities overlap? (b) What happens to go-live if the kiosks arrive two weeks late? (c) What could a Gantt chart not tell you here?

Activity	Start (week)	Finish (week)
A Survey and design	1	2
B Order kiosks (6-week lead time)	2	8
C Wire stations	3	6
D Install kiosks	8	9
E Train staff	7	9
F Go live	10	10

Question 2 - Which benchmark?

For each change, should performance be judged against the original or a revised budget? (a) A supplier's factory fire doubles a component's price. (b) The team chose an untested design that needed rework. (c) The client adds two new features.

Question 3 - Choose the contract

Recommend a contract type and the main control focus for (a) a clearly specified fence around a car park, (b) urgent IT support during a cyber incident, and (c) a first-of-its-kind research prototype.

Worked answers

MODULE 4 | PART D.1 | WORKED ANSWERS - ATTEMPT THE QUESTIONS FIRST

Question 1 - Read the plan

(a) B overlaps with A's end and with C and E; D overlaps with E. (b) Kiosks arrive in week 10, so installation (D) moves to weeks 10-11 and go-live to about week 12 - two weeks late, because B, D and F are in sequence. (c) Which activities are critical, how much slack C and E have, and the cost of speeding up delivery - these need network analysis.

Question 2 - Which benchmark?

(a) Revised budget - uncontrollable. (b) Original budget - the design choice was controllable (a revised budget may still guide cash planning). (c) Revised budget for the new scope - scope changes are negotiated and priced separately.

Question 3 - Choose the contract

(a) Fixed price - well specified; watch quality and timing. (b) Payment for work done - scope unknowable in advance; monitor hours, rates and outcomes daily. (c) Cost-plus or a target-cost contract with shared savings - high uncertainty; audit cost records, exclude non-reimbursable costs, and use incentives for time and cost.