

- LO5-4**
21. What feature in project management information systems can be used to resolve over-allocation of project resources?
 22. What was the first major project management information system that is now commonly used for managing very large projects?
 23. What type of chart compares the current project schedule with the original baseline schedule so that deviations from the original plan can be easily noticed?

ANALYTICS EXERCISE: PRODUCT DESIGN PROJECT

You work for Nokia in its global cell phone group. You have been made project manager for the design of a new cell phone. Your supervisors have already scoped the project, so you have a list showing the work breakdown structure, and this includes major project activities. You must plan the project schedule and calculate project duration. Your boss wants the schedule on his desk tomorrow morning!

You have been given the information in Exhibit 5.13. It includes all the activities required in the project and the duration of each activity. Also, dependencies between the activities have been identified. Remember that the preceding activity must be fully completed before work on the following activity can be started.

Your project is divided into five major subprojects. Subproject "P" involves developing specifications for the new cell phone. Here, decisions related to such things as

battery life, size of the phone, and features need to be made. These details are based on how a customer uses the cell phone. These user specifications are redefined in terms that have meaning to the subcontractors that will actually make the new cell phone in subproject "S" supplier specifications. These involve engineering details for how the product will perform.

The individual components that make up the product are the focus of subproject "D." Subproject "I" brings all the components together, and a working prototype is built and tested.

Finally, in subproject "V," suppliers are selected and contracts are negotiated.

1. Draw a project network that includes all the activities.
2. Calculate the start and finish times for each activity and determine the minimum number of weeks for

exhibit 5.13 Work Breakdown Structure and Activities for the Cell Phone Design Project

MAJOR SUBPROJECTS/ACTIVITIES	ACTIVITY IDENTIFICATION	DEPENDENCY	DURATION (WEEKS)
Product specifications (P)			
Market research	P1	—	2
Overall product specifications	P2	P1	4
Hardware	P3	P2	5
Software	P4	P3	5
Supplier specifications (S)			
Hardware	S1	P4	5
Software	S2	P4	6
Product design (D)			
Battery	D1	S1	1
Display	D2	S1	2
Camera	D3	S1	1
Outer cover	D4	D1, D2, D3	4
Product integration (I)			
Hardware	I1	D4	3
User interface	I2	D2	4
Software coding	I3	I2	4
Prototype testing	I4	I1, I3	4
Subcontracting (V)			
Suppliers selection	V1	S1, S2	10
Contract negotiation	V2	I4, V1	2