

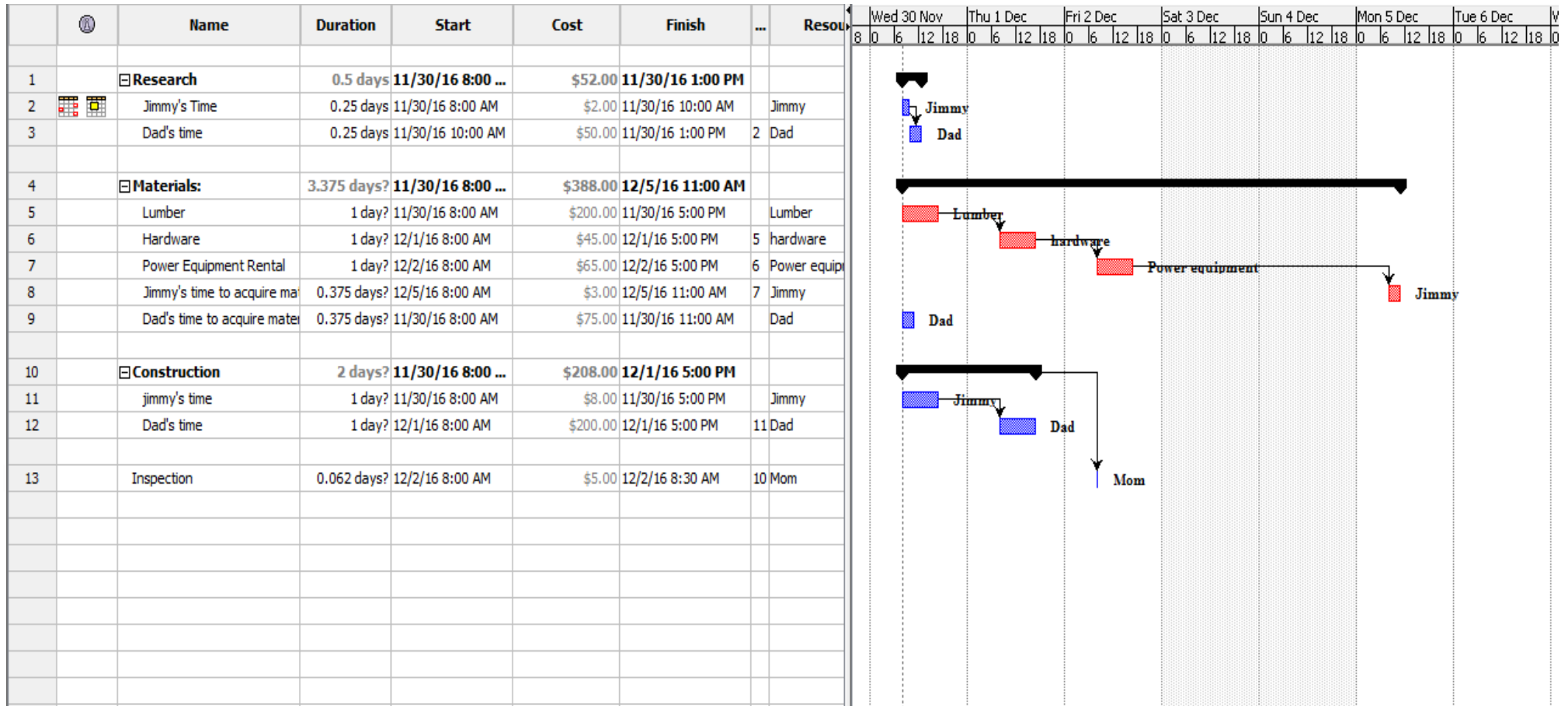
## Project Management

1) Following are elements of a WBS for a project to build a bunk bed. Using the information supplied here, create a WBS and carry out a bottom-up cost estimate.

		Cost(\$)	Rate (\$/hr)	Time (hrs)
<i>Research :</i>	Jimmy' time		1	2
	Dad's time		25	2
<i>Materials:</i>	Lumber	200		
	Hardware	45		
	Power equipment rental	65		
	Jimmy's time to acquire materials		1	3
	Dad's Time to acquire materials		15	3
<i>Construction:</i>	Jimmy's time		1	8
	Dad's time		20	8
<i>Inspection:</i>	Mom's time		10	0.5

Gantt chart:

Project Management



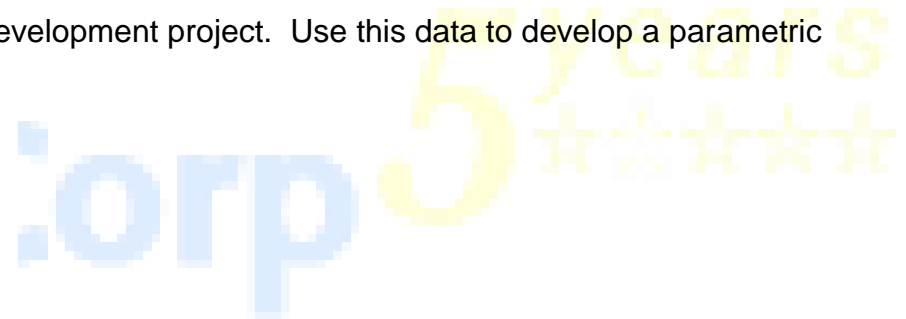
Cost Estimation:

1.	Research	\$52.00
2.	Material	\$388.00
3.	Construction	\$208.00
4.	Inspection	\$ 5.00
	Total:	\$653.00

As per price estimation the cost of the project would be \$653.00.

2) Following is a listing of items to be considered in costing a PC game development project. Use this data to develop a parametric estimate of the cost of the project.

	Cost (\$)	Rates(\$/hr)	Time (hr)
Resources:			
Designers		30	100
Artists		25	200
Programmers		25	1000
Work Station	3000		
Contracted Testing Group		50	100
Marketing Materials	1500		
Fringe benefits:	30% of Direct Wages		
Overhead:	70% of (Direct Wages + fringes)		



Cost Estimate:

Resource Cost= Direct Wedge= Cost associated with the Resource materials and human resources in the project;  
 Overall direct cost as per chart= \$42,500

Fringe Benefit= 30 % of Direct cost

$$\begin{aligned} &= 30 \% \times 42,500 \\ &= \$12,750 \end{aligned}$$

$$\begin{aligned} \text{Overhead} &= 70\% \text{ of (Direct Wedge + Fringe Cost)} \\ &= 70\% \text{ of } (\$42,500 + \$12,750) \\ &= \$38,675 \end{aligned}$$

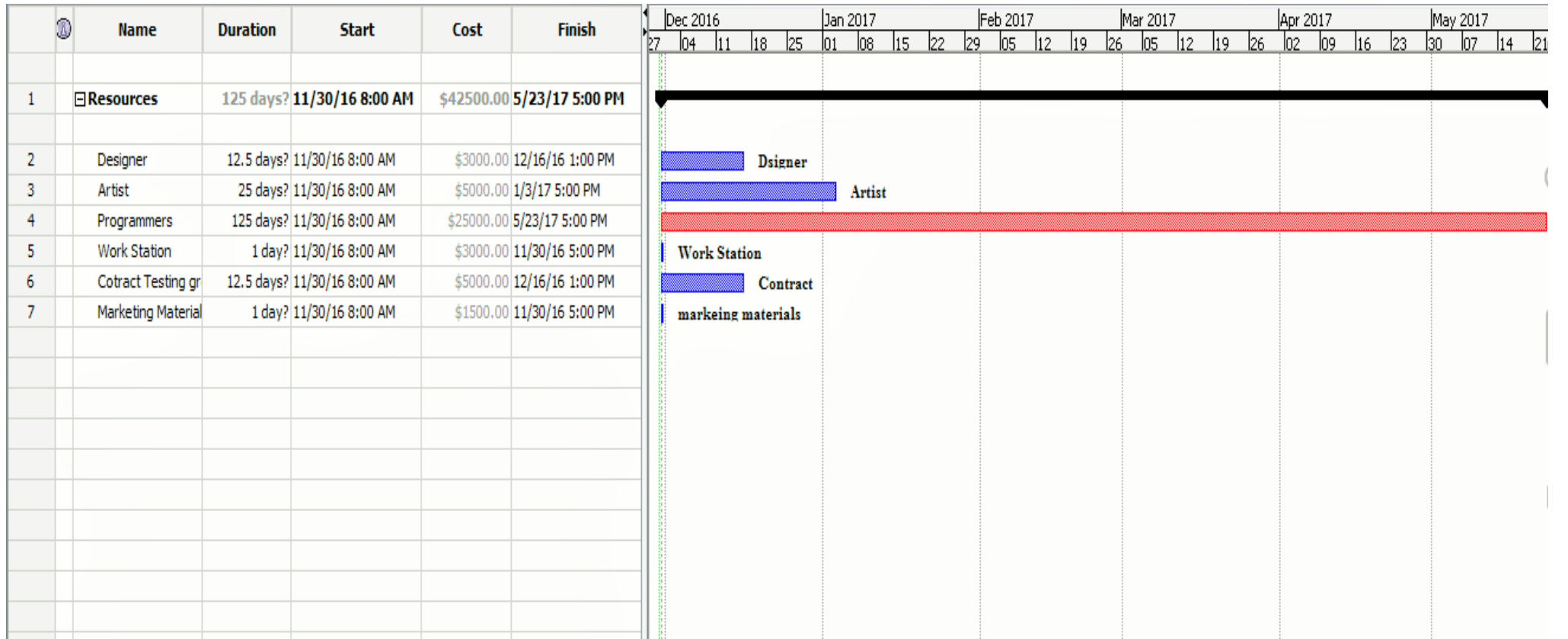
$$\begin{aligned} \text{Overall cost of development} &= \text{Direct Wedge} + \text{Fringe Benefit} + \text{Overhead} \\ &= \$42,500 + \$12,750 + \$38,675 \\ &= \$93,925 \end{aligned}$$



EssayCorp

5 years  
★★★★★

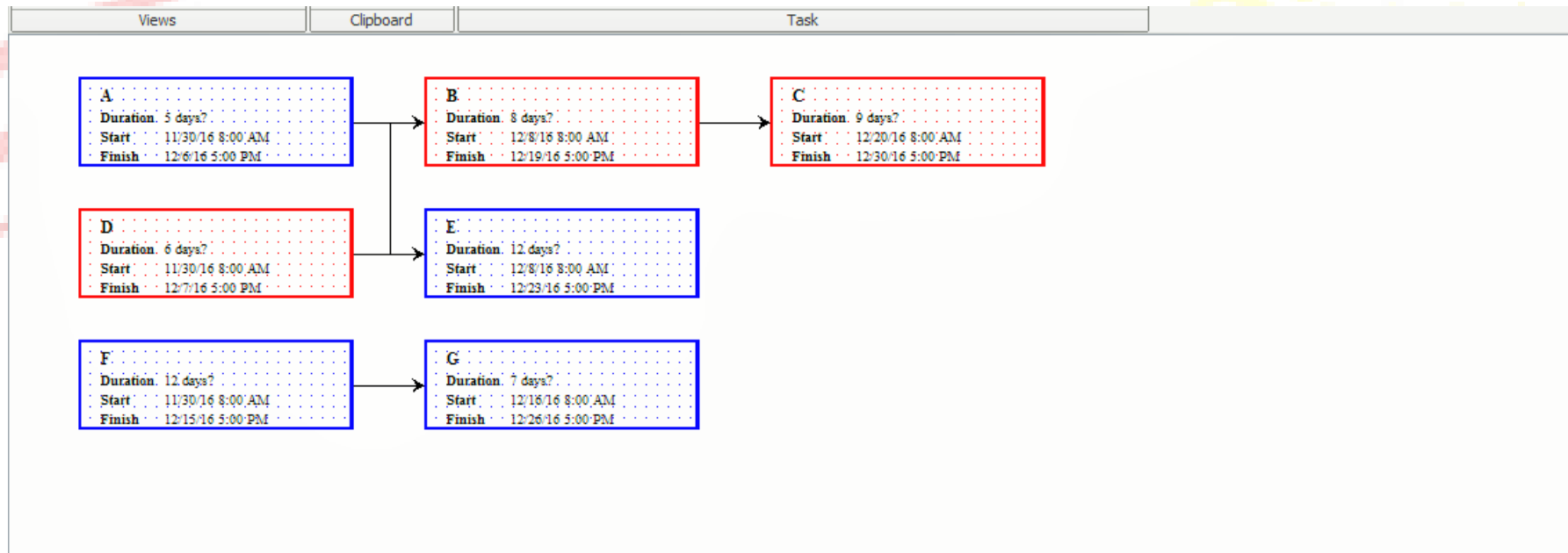
Project Management



3) For the table below

Task	Predecessor	Duration (in days)	Latest start	Earliest start	Float (slack)
A	Start	5			
B	A,D	8			
C	B	9			
D	Start	6			
E	D	12			
F	Start	12			
G	F	7			

a) Create a PERT/CPM chart



b) Identify the critical path and compute project duration

Critical path: A---D---B---C

As , B can t be completed without adding A and D

So,

Project Duration: 28 Days

c) Compute Latest Start, Earliest Start, and Float (Slack)

Here,

Project Duration: 22 Days

The shortest path = A---D---B---C

The Early Start= 19 Days

Early Finish= 28Days

Float=

Late Start- Early Start

So,

Late Start= 19

Slack=0

