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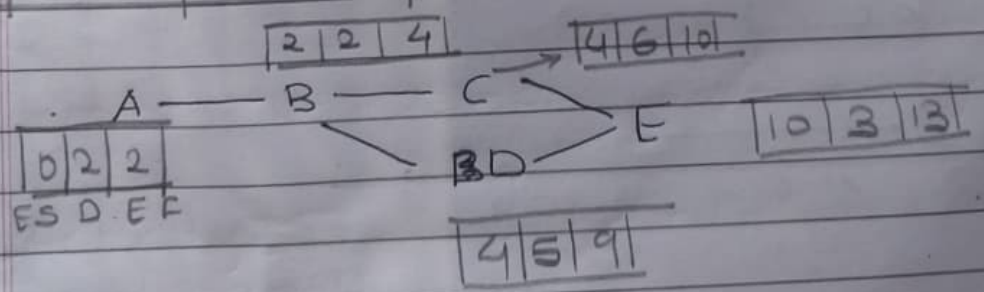
Q Generate a pie chart & bar chart for Online movie ticket management system Compared planned vs actual status of the project cost, budget & resources allocated. Assume suitable data & make CPM.

→

Task ID	Activity	Duration	Predecessor
A	Req. & Planning	2	-
B	System UI & design	2	A
C	Backend + DB	6	B
D	Frontend imple.	5	B
E	Integration, test	3	C, D

Step 1: Forward pass Find ES & EF

Activity	Duration	Predecessor	Es	EF
A	2	-	0	2
B	2	A	2	4
C	6	B	4	10
D	5	B	4	9
E	3	C, D	max(9,10) 10	13



The critical path is longest path through the network

Path	Duration	
A-B-C-F	2+2+6+3	= 13
A-B-D-F	2+2+5+3	= 12

longest path A-B-C-F
taking 13 days

Step 2: Assume cost, budget & resource

Activity	Planned cost (₹)	Actual cost (₹)	Planned Resource	Actual resource
A	10,000	9,000	2	2
B	15,000	16,000	3	5
C	30,000	32,000	4	3
D	25,000	22,000	3	5
E	20,000	26,000	4	2
Total	1,00,000	1,05,000	16	17

This is for bar chart

Q.10. Create a project dashboard for online home delivery management system to show project summary, Allocated resources, project completion cost & budget, allotted tasks. Make make a CPM for same

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1) Project Summary:

1. Project Name: Online home delivery Mgmt System
2. Objective: Manage Orders, delivery tracking, customer records, payment, delivery agents
3. Duration: 10 weeks
4. Total Budget: ₹ 10,00,000
5. Overall Progress: 60% completed

2) Allocated Resources

	Resource	Quantity	Role
1.	Developers	3	Backend + frontend
2.	UI/UX design	1	Screent GUI
3.	Database Admin	1	DB Design
4.	Delivery Domain expert	1	Req. analysis
5.	QA tester	1	Testing
		7	

3) Project completion cost & budget

	Activity	Budgetrd Cost	Acutual Cost
1.	Development	₹ 6,00,000	₹ 5,00,000
2.	Database Setup	₹2,00,000	₹1,50,000
3.	Testing	₹1,00,000	₹ 70,000
4.	Deployment	₹1,00,000	Pending

Total Budget : ₹ 1,00,0000
Actual Spent : ₹ 7,20,000
Balance : ₹ 2,80,000

4) Allocated tasks

	Activity	Status
1.	Req & Plan	Completed
2.	UI design	Completed
3.	Backend	In progress
4.	Database	Completed
5.	Testing & deployement	Pending

CPM:

Activity		Duration	Predecessor
A	Req Gather	1	-
B	UI design	2	A
C	Backend	3	B
D	Database	2	B
E	Integration	1	C, D
F	Delivery Module	2	C
G	Testing	2	E, F
H	Deployment	1	G

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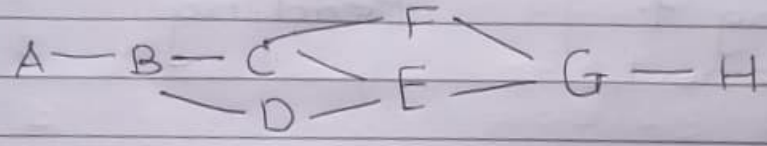
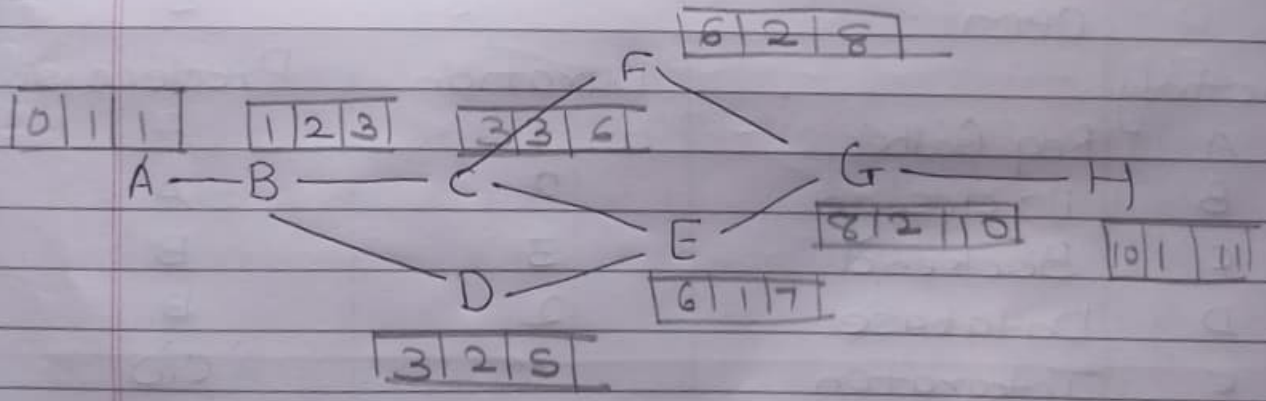
Forward Pass

Activity	Duration	Predecessor	ES	EF
A	1	-	0	1
B	2	A	1	3
C	3	B	3	6
D	2	B	3	5
E	1	C, D	max F(6/5) 6	7
F	2	C	6	8
G	2	E, F	8	10
H	1	G	10	11





Path	Duration	weeks
A-B-C-F-G-H	1+2+3+2+2+1	=11
A-B-D-F-G-H	1+2+2+1+2+1	= 10
A-B-C-E-G-H	1+2+3+1+2+1	= 10

We choose longest path So CPM is

A-B-C-F-G-H → 11 weeks