

# Software Project Management

## LAB 3

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# 1. COCOMO MODEL

Project A: Creating a page for each individual artist

Project B: Implement AI that recommends music to user

Project C: Implementing the background (HTML) of each page

Project D: Design of our page (CSS)

Project E: Allocating the different songs that belong to a certain genre

Project F: Implementing interface to run adds

Project G: Payment method interface for people looking to subscribe

Project H: Creating a login page

Project I: Methods to update most releases songs

Project J: Building a cache where users are able to save their music

Project K: Building an AI that checks what people's favorite songs and genres are weekly

**(Divided into work per week)**

	DESIGN		CODING		TESTING		TOTAL	
PROJEC T	ww	%	ww	%	ww	%	ww	SLOC
A	2.3	22	5.6	36	7.0	42	14.9	9080
B	3.6	30	7.3	38	8.3	32	19.2	15502
C	1.5	25	3.5	35	0.8	40	5.8	4415
D	0.8	25	2.1	38	0.6	37	3.5	3325
E	2.1	32	2.8	46	1.1	22	6	10301
F	2.7	15	4.7	62	3.3	23	10.7	7123
G	0.4	10	3.8	40	5.3	50	9.5	8001
H	1.3	22	4.2	47	2.4	31	7.9	6013
I	0.7	12	6.3	49	5.3	39	12.3	5321
J	0.3	7	5.3	56	2.2	37	7.8	4320
K	3.3	29	8.1	33	3.8	38	15.2	13051

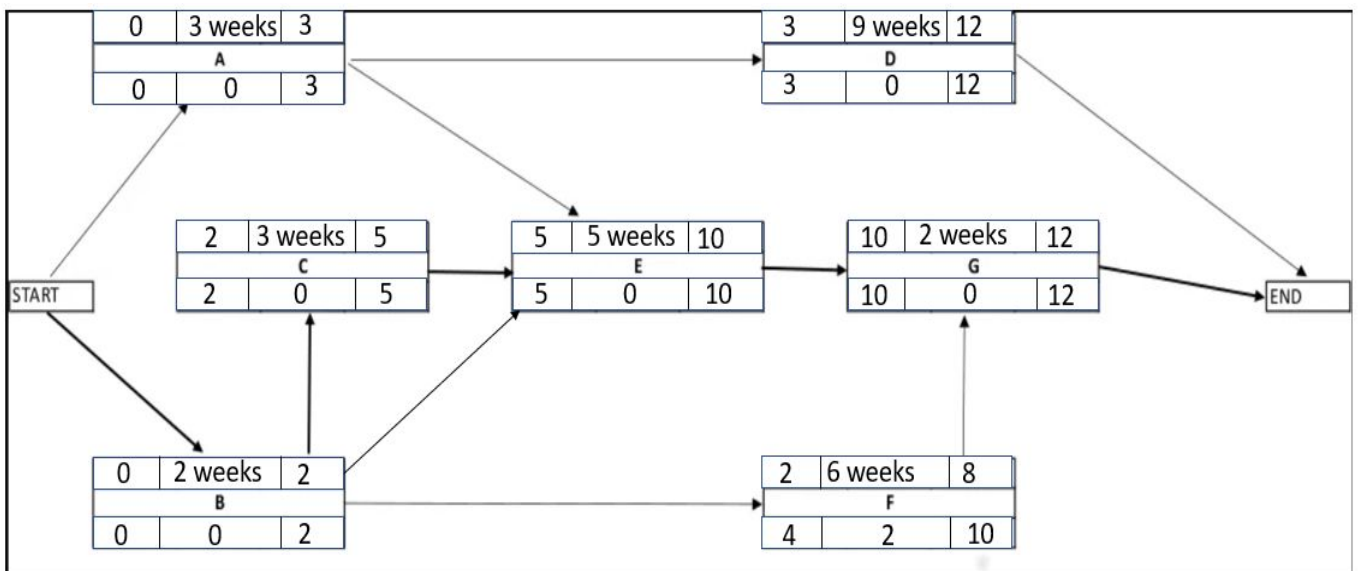
Project	Work-months	SLOC	Productivity (SLOC/month)
A	14.9	9080	609
B	19.2	15502	807
C	5.8	4415	761
D	3.5	3325	950
E	6	10301	1717
F	10.7	7123	666
G	9.5	8001	842
H	7.9	6013	761
I	12.3	5321	433
J	7.8	4320	554
K	15.2	13051	859
Overall	112.8	86452	766

Project	Estimated work-month	Actual	Difference	Over/under estimate
A	9080/766	11.9	3	Under
B	15502/766	20.2	1	Over
C	4415/766	5.8	0.6	Same
D	3325/766	4.3	0.8	Over
E	10301/766	13.4	7.4	Over
F	7123/766	9.3	1.4	Under
G	8001/766	10.4	0.9	Over
H	6013/766	7.8	0.1	Under
I	5321/766	6.9	5.4	Under
J	4320/766	5.6	2.2	Under
K	13051/766	17.0	1.8	Over

## 2. Activity diagram

Project	Time
A - Select Employees	3 weeks
B - Select Language and programs	2 weeks
C- Design of the System	3 weeks
D - Meetings throughout project	9 weeks
E - Implementation of code	5 weeks
F - Maintenance of Project	6 weeks
G - Final Review before deployment to end user	2 weeks

(Critical path shown in bold)



### 3. Risks involved-

One of the biggest risks that we might face is developing the application/software in a way that it tracks the monthly payments and the uploading fee for every single artist. To countermeasure this problem we are planning to have a separate team of developers constantly working towards the payment system.

Hiring staff/developers/engineers will surely be a hefty task as recruitment takes time and a lot of skimming through the applications. Our hiring team is going to hire 2 extra staff for the team to avoid any incompleteness of work and to deliver the project on the planned deadline. The reason behind hiring 2 extra employees

Since, this music hub will allow users to listen to the new releases we will need to make sure that our marketing team stays in touch with the artists.

Being such a big project that lets people around the world have access to any kind of music available out there. Our top priority should be to maintain the cloud server so that we can avoid the server crash. Implementing the code itself is a big task, and it's natural to have problems occur but our plan is to work with some extra time in hand so we don't miss out on the deadline. Maintenance for the code is something that can't be neglected even after the project is done since, there's often various updates for OS so that have to be done.

Talking about deploying the project, the major risk could be the compatibility with the various devices and the operating systems. Well, that will be taken care of by the senior developers.