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SE Experiment 6

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Aim: Estimate effort & cost required for project using FP/ COCOMO. Create WBS & Gaant chart for the same. use PM tool to depict a plan.

Theory:
FP calculation:

Info Domains	Value	Cnt	weight factor Simple	Avg	complex
EI's		3	3	4	6
EO's		2	4	5	7
EQ's		1	3	4	6
ILF's		4	7	10	15
EIF's		1	5	7	10

count

3 → External Inputs (EI's) : User login request, business request , Accept input request.

2 → External outputs (EO's): Show feed request, Save user preferance.

1 → External Enquiries : Gather Post with user preferenc

4 → Internal logic files: User Account, Activity, Media, Bussn

1 → External Interface files: ML Based Suggestions on feed.

Cost drivers:

1) Does system require Reliable Backup & recovery?
2) Are specialized Data communication required
3) Are there distribute processing functons?
4) Is performance critical?
5) Will system run in heavily utilized Environment?
6) Does the system require Online Data Entry?
7) is Online Data Entry happening via Multiple screens & funct
8) Are IFL's updated online?
9) Are input output file enquiries complex?
10) is the internal processing complex?
11) Is the code Reusable?

$\Sigma Fi = 59$

FP Estimated = count - total $\times [0.65 + 0.01 \times (\Sigma Fi)]$

count total = 53

FP = $53 \times [0.65 + 0.01 \times 59]$

= 66

Proj Dural^r: 3 months = 22 person months

No. of Individuals = 4 $\therefore$ 22/4 = 5.5 PM/P

Conclusion: Thus we are able to calculate the efforts required for our project & prepare a Gaant chart.

Experiment 6

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Aim: Estimate effort and cost required using FP/COCOMO for the project. Create WBS and Gantt Chart for the same. Use PM Tool to depict a project plan.

FP Calculation:

Information Domain Value	Count	Weighting Factor		
		Simple	Average	Complex
External Inputs (EIs)	3	3	4	6
External Outputs (EOs)	2	4	5	7
External Inquiries (EQs)	1	3	4	6
Internal Interface Files (ILFs)	4	7	10	15
External Interface Files (EIFs)	1	5	7	10

The counts for each component in the Function Point Analysis table were derived from the information provided in the data flow diagram.

External Inputs (EI):

Count = 3

- User Login Request
- Business Request
- Accept Input Request

External Outputs (EO):

Count = 2

- Show Feed Request
- Save User Preferences

External Inquiries (EQ):

Count = 1

- Gather Post with Users Preferences

Internal Logical Files (ILF):

Count = 4

- User Account
- Media
- Business
- User Activity

External Interface Files (EIF):

Count = 1

- ML Based Suggestions on Feed

The count represents the number of unique instances or occurrences of each component type identified from the data flow diagram. For example, there are three distinct External Inputs shown in the diagram, so the count for External Inputs is 3.

It's important to note that the accuracy of these counts depends on the level of detail and completeness of the information provided in the data flow diagram. As the project progresses and more detailed requirements are gathered, these counts may need to be adjusted accordingly.

Considering weighting factor as simple
FP estimated = count-total X [0.65+0.01*(∑Fi)]

count-total = 3*3+2*4+1*3+4*7+1*5

= 53

14 questions:

1. Will the application use data communications?
    - Yes (High Precedentedness) - 4
2. Are data or functions distributed?
    - No (Low Required Reusability) – 2

3. Are there specific performance objectives that must be met?
    - Yes (High Architecture/Risk Resolution) - 5
4. Will the application run on a heavily used configuration requiring special design considerations?
    - Yes (High Architecture/Risk Resolution) - 5
5. Will the transaction rate of the application be high?
    - Yes (High Product Complexity) - 5
6. Will there be on-line data entry?
    - Yes (High Product Complexity) - 5
7. Will the application be designed for end-user efficiency?
    - Yes (High Product Complexity) - 5
8. Will there be on-line updates?
    - Yes (High Product Complexity) - 5
9. Is complex processing logic involved?
    - Yes (High Product Complexity) - 5
10. Is there an intent to provide usability for other applications?
    - Yes (High Product Complexity) - 5
11. How important are installation ease and conversion?
    - Moderate (No specific information provided) - 3
12. How important is operational ease?
    - High (No specific information provided) - 4
13. Will the application be accessed from multiple sites?
    - No (Single Site development) - 1
14. Is there an intent with the design to facilitate change?
    - Yes (High Development Flexibility) - 5

$\sum Fi = 59$

FP estimated = 53 * [0.65+0.01*59]

= 66

Our project is having FP of 66

To calculate the productivity for each person based on the given information, we can follow these steps:

1. Calculate the total person-months required for the project using the given Function Points and project duration.
2. Divide the total person-months by the number of individuals working on the project to determine the average productivity per person.

Calculate total person-months:

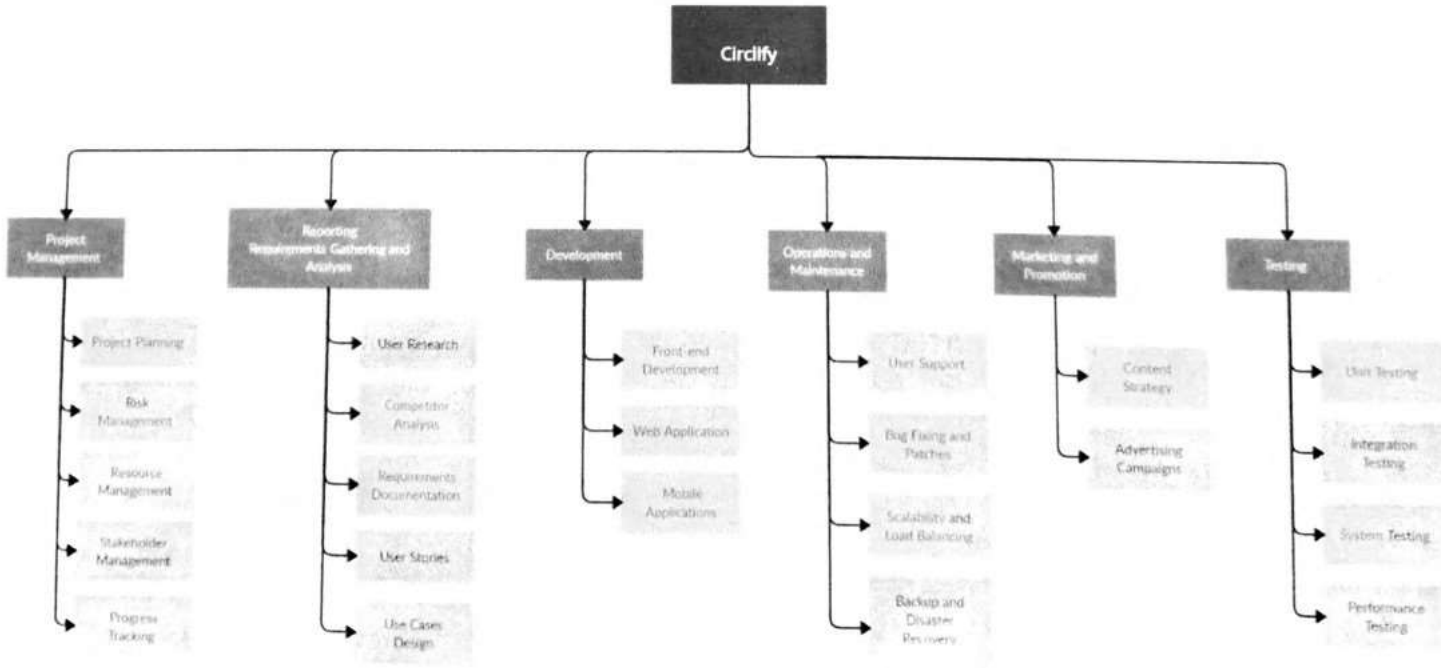
- Total Function Points (FP) = 66
- Project Duration = 3 months
- Total Person-Months = Total Function Points / Project Duration = 66 FP / 3 months ≈ 22 person-months

Determine average productivity per person:

- Number of Individuals = 4
- Productivity per Person = Total Person-Months / Number of Individuals = 22 person-months / 4 ≈ 5.5 person-months per person

So, based on the given information, the average productivity per person for the project is approximately 5.5 person-months.

Work Breakdown Structure:



Gantt Chart:

Conclusion: Thus, we are able to estimate effort required for our project and also create Gantt Chart.