

Name:.....
ID:.....

Exercise 1: Estimation for Project A

Description:

Calculate UFP

Function Type	Estimated Count	Weight	FP-Count
EI	24	(Average) 4	96
EO	16	(Average) 5	80
EQ	22	(Average) 4	88
ILF	4	(Average) 10	40
ELF	2	(Average) 7	14
UFP count			318

Exercise 2: Estimation for Project B

Description:

External Inputs

Data Stream

Configuration files

User Selection

User Input

External Output

Telemetry Data1 screen

Telemetry timing screen

Telemetry Data2 Screen

Status Screen

Internal Logical Files

Storage file

Intermediate buffer

Intermediate Result

Channel Files

External Interface Files

Complexity

High

Low

Medium

Low

Complexity

Medium

Low

Medium

Medium

Complexity

Medium

High

Low

Low

Complexity

External Interface for Data2

Low

External Queries

Not Any.

1. Data Communications	2
2. Distributed Data Processing	0
3. Performance	5
4. Heavily Used Configuration	5
5. Transaction Rate	2
6. Online Data Entry	4
7. End-User Efficiency	3
8. Online Update	5
9. Complex Processing	4
10. Reusability	5
11. Installation Ease	4
12. Operational Ease	3
13. Multiple Sites	4
14. Facilitate Change	5

Calculate UFP, FP

Parameters	Low	Medium	High
External Inputs	$2*3=6$	$1*4=4$	$1*6=6$
External Outputs	$1*4=4$	$3*5=15$	$0*7=0$
External Queries	$0*3=0$	$0*4=0$	$0*6=0$
Internal Logical Files	$2*7=14$	$1*10=10$	$1*15=15$
External Interface Files	$1*5=5$	$0*7=0$	$0*10=0$

$$UFP = 16 + 19 + 0 + 39 + 5 = 79$$

$$CAF = 0.65 + 0.01*51 = 1.16$$

$$FP = UP * CAF = 79 * 1.16 = 91,64$$

Exercise 4: Estimation for Project D

Calculate the function score value for a project with the information field characteristic as follows:

- Input: 32
- Output: 60
- Inquiry: 24
- Logical file: 8
- External interface: 27

Assume all complexity adjustment values are average. Calculate the feature point value under the same conditions.

Calculate FP

$$FP = UFP * CAF.$$

$$UFP = 32*4 + 60*5 + 24*4 + 8*10 + 27*7 = 793$$

$$CAF = (0.65 + 0.01*(14*3)) = 1.07$$

$$FP = 793 * 1.07 = 848,51$$

Exercise 4: Based on the functional score in Exercise 3, calculate the conductivity measures:

- Productivity
- Quality
- Cost
- Data

Of which: person = 12, month = 4, number of errors = 1000, total cost = \$ 150,000,000, number of data pages = 200.

$$\text{Productivity} = FP / (\text{Person} * \text{month}) = 848,51 / (12*4) = 17,678.$$

$$\text{Quality} = \text{number of errors} / FP = 1000 / 848,51 = 1.18$$

$$\text{Cost} = \text{total cost} / FP = 150.000.000 / 848,51 = 176.780,5$$

$$\text{Data} = \text{number of data pages} / FP = 200 / 848,51 = 0.2356$$

Exercise 6:

Assuming:

Estimated FP = 401

Organisation average productivity (similar project type) = 6.5 FP/p-m (person-month)

Burdened labour rate = 8000 \$/p-m

Then

Estimated effort = ?

Cost per FP = ?

Project cost = ?

Estimated effort = $401 / 6.5 = (61.65) = 62$ p-m

Cost per FP = $8000 / 6.5 = 1231$ \$/FP

Project cost = $8000 * 62 = 496000$ \$