San Diego Global Knowledge University.

Full Stack Development Immersive.

FSDI 117

Competency Report-

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Melting Point

Type/Complexity	Casualty	Stocking	Loud
(EI) External input	3PF	4PF	6PF
(EO) External Output	4PF	5PF	7PF
(EQ) External consultation	3PF	4PF	6PF
(ILF) Internal logical file	7PF	10PF	15PF
(EIF) External interface file	5PF	7PF	10PF

EI = External Input (Screen where the user enters data)
EO = External Output (Reports,graphs,data listing)
EQ = External Query (Retrieve and display data to the user)
ILF = Internal Logical File (Can be tables in the database)
EIF = External Interface File (Data referenced to other systems)

The system requires:
- Guitar registration (EI 4 PF)
- User registration (EI 4PF)
- Search Guitars by type (EQ 4PF)
- Guitar data update (EI 4PF)
- Remove guitars(EI 4PF)
- Remove users(EI 4PF)
- List of Guitars (EO 5PF)
- List of Users (EO 5 PF)
- Report of guitars registered by design range (EO 5PF)
- Report of Registered Users by dates (EO 5 PF)
- 5 BD tables (ILF 50PF)

Unadjusted function points (PFSA) = 94

Type/Complexity	Casualty	Stocking	Loud	Total
(EI) External input	3PF	5x4PF	6PF	20
(EO) External Output	4PF	4x5PF	7PF	20
(EQ) External consultation	3PF	1x4PF	6PF	4
(ILF) Internal logical file	7PF	5x10PF	15PF	50
(EIF) External interface file	5PF	0x7PF	10PF	0
			PFSA	94

ADJUSTMENT FACTOR

Adjustment factor	Score
Data Communication	4
Distributed Processing	4
Performance targets	1
Equipment Configuration	1
Transaction fee	3
Online data entry	3
user interface	5
Online update	4
Complex processing	1
Code reusability	1
Ease of implementation	
Ease of change	1
Ease of operation	2

Multiple installation	4
Adjustment factor	34

ADJUSTED FUNCTION POINT

PFA = PFSA * [0.65+(0.01*adjustment factor)]
PFA = 94 * [0.65 + (0.01 * 34)]
PFA = 94 * [0.65 + 0.34]
PFA = 94 * 0.99
PFA = 93

EFFORT ESTIMATION

Language	Average PF Hours	Code lines by PF
Assembler	25	300
COBOL	15	100
Fourth Generation Languages	8	20

H/H = PFA * Average PF Hours
H/H = 94 * 8
H/H =752 Man Hours

3 Developers
5 hours a day of work
1 month = 22 days

752/ 3 = 250.66 hours (Duration of the project in hours)

250.66/5 = 50.13 working days

50.13/20 = 2.50 months to develop the software from Monday to Friday 5 hours a day with 3 developers (Project duration estimate)

COCOMO INTERMEDIATE

Driver	Very low	Low	Nominal	High	Very high	Extra high
PREC	6.20	4.96	3.72	2.48	1.24	0.00
FLEX	5.07	4.05	3.04	2.03	1.01	0.00
RESL	7.07	5.65	4.24	2.83	1.41	0.00
TEAM	5.48	4.38	3.29	2.19	1.10	0.00
PMAT	2.80	6.24	4.68	3.12	1.56	0.00

SCALE FACTOR

FS = 7.07+6.24+3.72+2.03+1.10

E = .91 + (0.01 * 20.16)1.11

EFFORT ESTIMATION

PM = 2.94 * (2000/1000)1.11 = 6.34 PM