Software Engineering
Function Points Analysis
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SYSTEM SIZE:
2) PROCESSING COMPLEXITY CALCULATION

Complexity Weighting Factor	Brief Description	Value (0—5)
Data communications	How many communication facilities are there to aid in the transfer or exchange of information with the application or system?	2
Heavily used configuration	How heavily used is the current hardware platform where the application will be executed?	0
Transaction rate	How frequently are transactions executed daily, weekly, monthly, etc.?	4
End-user efficiency	Was the application designed for end-user efficiency?	0
Complex processing	Does the application have extensive logical or mathematical processing?	1
Installation ease	How difficult is conversion and installation?	0
Multiple sites	Was the application specifically designed, developed, and supported to be installed at multiple sites for multiple organizations?	0
Performance	Was response time or throughput required by the user?	1
Distributed data processing	How are distributed data and processing functions handled?	0
Online data entry	What percentage of the information is entered online?	1
Online Updating	How many ILF's are updated by On-Line transaction?	0
Reusability	Was the application developed to meet one or many user's needs?	2
Operational ease	How effective and/or automated are start-up, back-up, and recovery procedures?	1
Extensibility (Facilitate change)	Was the application specifically designed, developed, and supported to facilitate change?	0
	Total Processing Complexity (PC):	12

Information domains	Count	Weighting Factor			Total
		Simple	Average	Complex	
EIs	3	1 *3	2 *4	*6	11
EOs	2	1 *4	1 *5	*7	9
EQs	2	*3	1 *4	1 *6	10
ILFs	4	1 *7	3 *10	*15	37
EIFs	2	*5	1 *7	1 *10	17
Total Unadjusted Function Points (TUFP)					84

Total Adjusted Function Points = (.65 + (.01 * 12)) * 84) = 64.68

Lines Of Code:

Language	LOC per FP
JS	500/6 = 83.3
Python	300/2 = 150
HTML	200/10 = 20
CSS	100/1 = 100

= 353.3 Lines of Code

Effort Required

PROJECT	*a*	*b*
Organic	2.4	1.05
Semi Detached	3.0	1.12
Embedded	3.6	1.20

$$E = a * (KLOC)^b$$

E = 2.4 * (3.353)^1.05 = 8.549 person months

Time Required

PROJECT	*c*	*d*
Organic	2.5	0.38
Semi Detached	2.5	0.35
Embedded	2.5	0.32

$$Tdev = c * (E)^d$$

TDev = 2.5 * (8.5)^.38 = 5.64 months

Time of Development Required is 5.64 months