NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL
CASETOOLS-ASSIGNMENT

PROJECT: ONLINE LAND MARKETING WEBSITE.

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Section: A

DATE: 11/11/2021

1) USE CASE POINT METRIC:

Unadjusted Use Case Weight (UUCW) :

Use-Case Complexity	Use-Case Weight	Number of Use-Cases	Product
Simple	5	5	25
Average	10	6	60
Complex	15	2	30
Unadjusted Use-Case Weight (UUCW)			115

Unadjusted Actor Weight (UAW):

Simple actors = 6 (6 API Features)
Average actors = 2 (Database comm., User server comm.)
Complex actors = 1 (User)
UAW = Simple*1 + Avg*2 + Complex*3= 6 + 4 + 3
= 13

Technical Complexity Factor (TCF):

Factor	Description	Weight (W)	Rated Value (0 to 5) (RV)	Impact (I = W × RV)
T1	Distributed System	2.0	3	6
T2	Response time or throughput performance objectives	1.0	4	4
T3	End user efficiency	1.0	2	2
T4	Complex internal processing	1.0	3	3
T5	Code must be reusable	1.0	2	2
T6	Easy to install	.5	5	2.5
T7	Easy to use	.5	5	2.5
T8	Portable	2.0	5	2.5
T9	Easy to change	1.0	4	4
T10	Concurrent	1.0	4	4
T11	Includes special security objectives	1.0	1	1
T12	Provides direct access for third parties	1.0	2	2
T13	Special user training facilities are required	1.0	0	0
Total Technical Factor (TFactor)				35.5

TCF = 0.6 + (0.01 × Tfactor)
= 0.955

Environmental Complexity Factor (ECF):

Factor	Description	Weight (W)	Rated Value (0 to 5) (RV)	Impact (I = W × RV)
F1	Familiar with the project model that is used	1.5	4	6
F2	Application experience	.5	3	1.5
F3	Object-oriented experience	1.0	5	5
F4	Lead analyst capability	.5	3	1.5
F5	Motivation	1.0	5	5
F6	Stable requirements	2.0	5	10
F7	Part-time staff	-1.0	0	0
F8	Difficult programming language	-1.0	1	-1
Total Environment Factor (EFactor)				28

ECF = 1.4 + (-0.03 × Efactor)

= 0.56

HENCE;

UCP = (UUCW + UAW) x TCF x ECF

= (115+13) * 0.9 * 0.56

= 57.6

2) FUNCTION POINT METRIC

Functional Unit	Wighting Factors			Count	Value
	Low	**Average**	**High**		
External Inputs (EI)	3	4	6	3	9
External Outputs (EO)	4	5	7	2	8
External Enquired (EQ)	3	4	6	6	18
Internal Logic Files (ILF)	7	10	15	2	14
External Interface Files (EIF)	5	7	10	2	10
Total Count					59

Value Adjustment Factor:

General System Characteristic	Brief Description	Rating
Data Communications	How many communication facilities are there to aid in the transfer or exchange of information with the application or system?	0
Distributed Data Processing	How are distributed data and processing functions handled?	0
Performance	Did the user require response time or throughput?	0
Heavily Used Configuration	How heavily used is the current hardware platform where the application will be executed?	4
Transaction Rate	How frequently are transactions executed daily, weekly, monthly, etc.?	1
On-Line Data Entry	What percentage of the information is entered online?	5
End-user Efficiency	Was the application designed for end-user efficiency?	0
Online Update	How many ILFs are updated	4

	by online transaction?	
Complex Processing	Does the application have extensive logical or mathematical processing?	0
Reusability	Was the application developed to meet one or many user's needs?	5
Installation Ease	How difficult is conversion and installation?	5
Operational Ease	How effective and/or automated are start-up, back-up, and recovery procedures?	4
Multiple Sites	Was the application specifically designed, developed, and supported to be installed at multiple sites for multiple organizations?	0
Facilitate Change	Was the application specifically designed, developed, and supported to facilitate change?	3

TDI = ∑14 Degrees of Influence
= 28
VAF = (TDI × 0.01) + 0.65
= 28 * 0.01 +0.6
= 0.88
HENCE;
Adjusted FP Count = Unadjusted FP Count × VAF
= 0.93 * 59= 54.87.