Department of Computer Engineering

Academic Term: First Term 2023-24

Class: T.E /Computer Sem – V / Software Engineering

Practical No:	**4**
Title:	**Function point Calculation**
Date of Performance:	**30/08/2023**
Roll No:	**9615**
Team Members:	**Soham(9615), Omkar(9643), Emmanuel(9609)**

Rubrics for Evaluation:

Sr. No	Performance Indicator	Excellent	Good	Below Average	Total Score
1	On time Completion & Submission (01)	01 (On Time)	NA	00 (Not on Time)	
2	Theory Understanding(02)	02(Correct)	NA	01 (Tried)	
3	Content Quality (03)	03(All used)	02 (Partial)	01 (rarely followed)	
4	Post Lab Questions (04)	04(done well)	3 (Partially Correct)	2(submitted)	

Signature of the Teacher:
Department of Computer Engineering

Academic Term: First Term 2022-23

EXPERIMENT NO 4: FUNCTION POINT CALCULATION

Aim: To calculate the function point for the Waste Management System which is prepared by Soham (9615), Emmanuel (9609), Omkar(9643).

a) Number of external inputs (EIs)
Soln: Wet Waste, Dry Waste, Dustbin.

b) Number of external outputs (EOs)
Soln: Level of Dry Waste, Level of Wet Waste, Segregated Waste.

c) Number of external inquiries (EQs)
Soln: Location of Dustbin, Waste Information, Concerned Authorities Information.

d) Number of internal logical files (ILFs)
Soln: Dustbin Location Data, Waste Data.

e) Number of external interface files (EIFs)
Soln: User Login Page, Admin Login Page.

Information Domain Value	Count		Weighting factor Simple	Average	Complex		
External Inputs (EIs)	3	×	3	4	6	=	9
External Outputs (EOs)	3	×	4	5	7	=	12
External Inquiries (EQs)	3	×	3	4	6	=	9
Internal Logical Files (ILFs)	2	×	7	10	15	=	14
External Interface Files (EIFs)	2	×	5	7	10	=	14
Count total	→						58

The Fi (i=1 to 14) are value adjustment factors (VAF) based on responses to the following questions:
1. Does the system require reliable backup and recovery?
Response: 3
2. Are specialized data communications required to transfer information to or from the application?
Response: 5
3. Are there distributed processing functions?
Response: 3
4. Is performance critical? Response: 5
5. Will the system run in an existing, heavily utilized operational environment?
Response: 2
6. Does the system require online data entry?

Response: 5
7. Does the online data entry require the input transaction to be built over multiple screens or operations? Response: 3
8. Are the ILFs updated online? Response: 5
9. Are the inputs, outputs, files, or inquiries complex?
Response: 2
10. Is the internal processing complex?
Response: 2
11. Is the code designed to be reusable?
Response: 4
12. Are conversion and installation included in the design?
Response: 0
13. Is the system designed for multiple installations in different organizations?
Response: 0
14. Is the application designed to facilitate change and ease of use by the user?
Response: 4
Calculations:
Given: ∑ (Fi) = 43
To Calculate: FP
Formula: 1. FP= UAF*CAF
2. CAF= 0.65 +0.01 * ∑ (Fi)
Soln: CAF = 0.65+0.01* ∑ (Fi)
CAF = 0.65+0.43 CAF = 1.08
FP = UAF*CAF
FP = 58*1.08 FP = 62.64

The Function Point for the Waste Management System is 62.64.

Conclusion: The Function Point (FP) value for the Waste Management System is 62.64. This metric reflects the system's complexity and size, by taking the factors stated above into consideration. The Function Point metric offers insightful data on the time and resources needed for platform development, testing, and maintenance.