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Software Engineering

Experiment - 9

Aim:-

Conduct Function Point Analysis for the project.

Theory :-

Functional Point (FP) Analysis :-

Functional Point was developed at IBM at 1979 and has been further modified by the International Function Point Users Group (IFPUG).

FPA is used to make an estimate of the software project including its testing in terms of functionality or function size of the software product.

The functional size of the product is measured in terms of function point which is a standard measurement to measure the software applications.

Formula:-

$$FP = \text{Count} - \text{total} * [0.65 + 0.01 * \sum (F_i)]$$

Solution:-

The weighing factor is assumed to be simple

Information Domain Value	Count	Weighting Factor	Total
No of user inputs	2	3	6
No of user outputs	3	4	12
No of user inquiries	2	3	6
No of files	20 15	7	105
No of external files	2	5	10
Count Total			139

Factors Affecting are:-

- 1] Backup and recovery - 4
- 2] Data Communication - 4
- 3] Distributed Processing - 3
- 4] Performance Critical - 5
- 5] Existing operating Environment - 4

- 6] Online Data Entry - 4
- 7] Input transaction over multiple screens - 4
- 8] Master files updated online - 3
- 9] Information domain values Comple - 3
- 10] Internal Processing Comple - 3
- 11] Code designed to reuse - 4
- 12] Conversion / Installation in design - 4
- 13] Multiple Installations - 3
- 14] Application designed for change - 3

Total Value adjustment Factor = $\sum F_i = 51$

$$\begin{aligned}
 FP &= \text{Count total} * [0.65 + 0.01 * \sum F_i] \\
 &= 139 * [0.65 + 0.01 * 51] \\
 &= 139 * [0.65 + 0.51] \\
 &= 139 * 1.16 \\
 FP &= 161.24
 \end{aligned}$$