**CHAPTER 4: PROJECT ESTIMATION**

**4.1 Estimation Technique used:**

The project size is a measure of the problem complexity in terms of the effort and time required to develop the product. Currently, two metrics are popularly being used to estimate size: Line of code (LOC) and function point (FP).

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Parameters** | **Count** |  | **Simple** | **Average** | **Complex** |  | **Total** |
| No. of user Input | 12 | X | 3 | 4 | 6 | = | 36 |
| No. of user Output | 4 | X | 3 | 5 | 7 | = | 12 |
| No. of Inquires | 0 | X | 3 | 4 | 6 | = | 0 |
| No. of Files | 1 | X | 3 | 5 | 9 | = | 3 |
| external Interface | 3 | X | 4 | 7 | 10 | = | 12 |

**Table 4.1 FP count**

**FP Count:**

FP=count total\*[0.65+0.01\*∑(Fi)] DI=Degree of Influence

=20\*[0.65+0.01\*53]

FP=23.6

Line of Code(LOC)=FP\*30

=23.6\*30=708

KLOC =0.759

**Software Project Type**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Type** | **ab** | **bb** | **cb** | **db** |
| Organic | 2.4 | 1.05 | 2.5 | 0.38 |
| Semi-detached | 3.0 | 1.12 | 2.5 | 0.35 |
| **Embedded** | **3.6** | **1.20** | **2.5** | **0.32** |

Effort = ab\*(KLOC) ^bb

= 3.6\*(0.708)^1.20

= 2.37 PM

Tdev = cb \* (Effort) ^db

= 2.5\*(2.37)^0.32

= 3.29 Months