# Function Point Estimation Worksheet

|  | **Complexity** | | |  |
| --- | --- | --- | --- | --- |
| Description | Low | Medium | High | Total |
| Inputs | \_\_\_\_\_ x 3 | \_\_\_4\_ x 4 | \_\_\_\_\_ x 6 | 16 |
| Outputs | \_\_\_\_\_ x 4 | \_\_\_3\_ x 5 | \_\_\_\_\_ x 7 | 15 |
| Queries | \_\_\_\_\_ x 3 | \_\_\_3\_ x 4 | \_\_\_\_\_ x 6 | 12 |
| Internal Files | \_\_\_\_\_ x 7 | \_\_\_3\_ x 10 | \_\_\_\_\_ x 15 | 30 |
| Interfaces | \_\_\_\_\_ x 5 | \_\_\_3\_ x 7 | \_\_\_\_\_ x 10 | 21 |

1. Total Unadjusted Function Points (TUFP): \_\_\_\_\_\_\_94\_\_\_\_\_\_\_\_

(0=no effect on processing complexity; 5=great effect on processing complexity)

| **Complexity Factors** | **(0-5)** |
| --- | --- |
| Data communications | 3 |
| Heavily use configuration | 2 |
| Transaction rate | 2 |
| End-user efficiency | 3 |
| Complex processing | 5 |
| Installation ease | 1 |
| Multiple sites | 1 |
| Performance | 5 |
| Distributed functions | 1 |
| On-line data entry | 5 |
| On-line update | 3 |
| Reusability | 1 |
| Operational ease | 2 |
| Extensibility | 2 |

1. Processing Complexity (PC): \_\_\_36\_\_\_
2. Adjusted Processing Complexity (PCA) = (65 + 36) \* 0.74 = 75%

71

1. Total Adjusted Function Points (TAFP): 94 \* 75 % =
2. Convert the TAFCs to Source Lines Of Code (SLOC)

71 \* ((html4) 14 + (sql) 13 + (JAVA) 31) = 4118 lines of code

1. Convert SLOC to a predicted Development Effort (MM) and elapsed time (TDEV)

Development effort (MM) = web development \* (KSLOC) SIZE PENALTY FACTOR

Effort = 3.3 \* (4.12) 1.03 = 14 person-month

Elapsed time = 2.5 \* (14) 0.38 = 7 month (organic)

Average staff required = effort / time = 14/7 = 2

(https://www.geeksforgeeks.org/software-engineering-cocomo-model/)

1. Allocation person Month

COCOMO webtool: <http://softwarecost.org/tools/COCOMO/>

Table

Description automatically generated

Chart, bar chart, histogram

Description automatically generated

Table

Description automatically generated

1. **Staffing the Project**

<https://www.cwjobs.co.uk/browse-it-jobs>

|  |  |  |  |
| --- | --- | --- | --- |
| STAFF | Role Salary in year (Pound) | Number of staff | Durations in month |
| Project Manager | 50,000 | 1 | 7 |
| Senior Software engineering/Team Leader | 50,000 | 1 | 5 |
| Junior software engineering | 30,000 | 3 | 5 |
| Requirement engineering | 45,000 | 2 | 2 |

1. **Staffing Cost for the project:**

a). Project Manager = (role salary/12)\*7 + 13% of role salary (for NI)

= 29,167 + 13% of role salary (6500)

= 29,167 + 6500 = 35,667 / for whole 7 month duration.

b). Senior Software = 20,833 + 13% (6500)

= 27,333 / for whole 5 month duration

c). Junior Software = (30,000/12)\*5 + 13%

= 12,500 + 3900

= (16,400) \* 3 (since we have 3 staff)

= 49,200 / for 5 whole month duration

d). Requirement E. = (45,000/12)\*2+ 13%

= 7500 + 5,850

= 13,350 \* 2 (two staff)

= 26,700 / for 2-month duration