**PRACTICAL: 4**

**CHINTAN MISTRY 71**

**VINIL PARIKH 75**

**TE CMPN B**

**AIM: COCOMO ESTIMATION**

Topic: **An integrated university department information system**

Estimated function points of the system: 324

Development language used: Java

Average lines of code required per FP: 53

Total lines of code: FP\*53 = 324\*53 = 17172

**KLOC: 17.17**

* **Basic COCOMO**

Considering the system is a semi-detached system,

Effort = 3.0(KLOC) ^ 1.12 PM

= 3.0(17.17) ^ 1.12 PM

= 72.45 PM

~ 73 PM

Tdev = 2.5 (Effort) ^ 0.35 Months

= 2.5 (73) ^ 0.35 Months

= 11.22 Months

~ 12 Months

Number of persons required =

= 73/12

= 6 persons

* **Intermediate COCOMO:**

|  |  |  |
| --- | --- | --- |
| **Criteria** | **Severity** | **Rating** |
| Required reliability | High | 1.15 |
| Database size | Very high | 1.16 |
| Product complexity | Nominal | 1.00 |
| Execution time constraint | Nominal | 1.00 |
| Main storage constraint | Low | 1.00 |
| Virtual machine volatility | Nominal | 1.00 |
| Computer turnaround time | High | 1.07 |
| Analyst capability | High | 0.88 |
| Application experience | High | 0.91 |
| Programmer’s capability | High | 0.86 |
| Virtual machine experience | Nominal | 1.00 |
| Language experience | High | 0.95 |
| Modern programming practices | Nominal | 1.00 |
| SW tools | Extra high | 0.83 |
| Required development schedule | high | 1.04 |

Cumulative multiplication index: 0.806

Hence,

Effort = Effort basic \* 0.806

= 72.45 \* 0.806

= 58.39 PM

~ 59 PM

Tdev = Tdev basic \* 0.806

= 11.22 \* 0.806

= 9.04 Months

~ 9 Months

Number of persons required =

= 59/9

~ 7 persons