

**Assignment # 2**

**Subject IT Project Management**

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**Section 15IT (A) Morning**

**Submitted**

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**Question:**

A company desires to develop an information system to strengthen its business. Information system have Purchase module, Sales module and Stock module. Expected line of code is same with your UOG id.

CEO of the company illustrated that a good sized database with above average reliability of system is required, however, the modules are very common so these are simple to develop. It is required to follow definitive schedule for development process.

You are required to calculate phase wise Effort, deployment time, staff size and productivity for embedded modes of detailed cocomo model.

**Effect Adjustment Factor (EAF)**

* **Good Size Database:** Let Assume good size Database = **Nominal**
* **System Reliability:** Average = **High**
* **Definitive Schedule for Development:** **Very High** (Because in Embedded mode time period is Tight and also required module are common).

**Effect Adjustment Factor (EAF)**

EAF = F \* F \* F \* …

EAF = 1.0 \* 1.15 \* 1.10

EAF = 1.265

**Effort calculation in Person-Month**

E = ai \* (KLOC)bi \* EAF

E = 2.8 \* (15331556.099)1.20 \* 1.265

E = 1485771558.57

**Development Time Calculation in Month**

D = ci \* (E)di

D = 2.5 \* (1485771558.57)0.32

D = 2152.60

**Staff Size Calculation (SS)**

SS = E/D

SS = 1485771558.57/2154.60

SS = 689581.15

**Productivity Calculation (P)**

P = KLOC/E

P = 15331556.099 /1485771558.57

P = 0.01031

**Phase wise Calculation (Embedded)**

* **Effort (Ep)= µp \* E**

**Plan & Requirement** = 0.08 \* 1485771558.57= 118861724.68

**System Design** = 0.18 \* 1485771558.57= 267438880.54

**Detail Design** = 0.24 \* 1485771558.57= 356585174.05

**Module Code & test** = 0.24 \* 1485771558.57= 356585174.05

**Integration and test** = 0.34 \* 1485771554.04 = 505162329.91

* **Development Time (Di) = Ƭp \* D**

**Plan & Requirement** = 0.40 \* 2152.60= 863.44

**System Design** = 0.38 \* 2152.60 = 817.98

**Detail Design** = 0.16 \* 2152.60 = 344.41

**Module Code & test** = 0.16 \* 2152.60 = 344.41

**Integration and test** = 0.30 \* 2152.60 = 645.78

* **Staff Size (SS) = E/D**

**Plan & Requirement** = 118861724.68/863.44= 137660.66

**System Design** = 267438880.54/817.98 = 326950.39

**Detail Design** = 356585174.05/ 344.41= 1035350.81

**Module Code & test** = 356585172.96/ 344.41= 1035350.81

**Integration and test** = 505162329.91/645.78= 782251.43

* **Productivity (P) = KLOC/E**

**Plan & Requirement** = 15331556.099 / 118861724.68= 1.82

**System Design** = 15331556.099 / 267438880.54= 0.057

**Detail Design** = 15331556.099 / 356585174.05= 0.042

**Module Code & test** = 15331556.099 / 356585172.96= 0.042

**Integration and test** = 15331556.099 / 505162329.91= 0.303