Q-2

Booking screen(Medium) - 2

Pricing screen(Simple) - 1

Availability screen(Medium) - 2

Sales report(Medium) - 5

Total - 10

15% of the objects could be supplied from previously developed components.

Adjusted NOP = 10\*(1-15/100)

= 10\*0.85

= 8.5

For high productivity PROD = 25 OP/P-M

Estimated effort Person-Month = Adjusted NOP / PROD

= 8.5/25

= 0.34 PM

Q-3

UUCW = (No. simple use case \* 5)+ (No. Average use case \* 10)+ (No. Complex use case \* 15)

= 15\*1

= 15

UAW = (No. simple actor \* 1)+ (No. Average actor \* 2)+ (No. Complex Actor \* 3)

= 0\*1 + 1\*2 + 3\*3

= 2+9

= 11

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Factor** | **Description** | **Weight** | **Value** | **Weight \* value** |
| T1 | Distributed system | 2.0 | 5.0 | 10 |
| T2 | Response time/performance objectives | 1.0 | 5.0 | 5 |
| T3 | End-user efficiency | 1.0 | 3.0 | 3 |
| T4 | Internal processing complexity | 1.0 | 5.0 | 5 |
| T5 | Code reusability | 1.0 | 4.0 | 4 |
| T6 | Easy to install | 0.5 | 3.0 | 1.5 |
| T7 | Easy to use | 0.5 | 5.0 | 2.5 |
| T8 | Portability to other platforms | 2.0 | 0.0 | 0 |
| T9 | System maintenance | 1.0 | 4.0 | 4 |
| T10 | Concurrent/parallel processing | 1.0 | 5.0 | 5 |
| T11 | Security features | 1.0 | 5.0 | 5 |
| T12 | Access for third parties | 1.0 | 0.0 | 0 |
| T13 | End user training | 1.0 | 0.0 | 0 |
|  | **Total** |  |  | 45 |
|  |  |  |  |  |

TCF = 0.6+(TF/100)

= 0.6+0.45

= 1.05

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Factor** | **Description** | **Weight** | **Value** | **Weight \* value** |
| E1 | Familiarity with development RUP | 1.5 | 2 | 3 |
| E2 | Application experience | 0.5 | 1 | 0.5 |
| E3 | Object-oriented experience of team | 1.0 | 4 | 1 |
| E4 | Lead analyst capability | 0.5 | 4 | 2 |
| E5 | Motivation of the team | 1.0 | 3 | 3 |
| E6 | Stability of requirements | 2.0 | 5 | 10 |
| E7 | Part-time staff | -1.0 | 0 | 0 |
| E8 | Difficult programming language | -1.0 | 4 | -4 |
|  | **Total** |  |  | 15.5 |

ECF = 1.4 + (-0.03\*EF)

= 1.4+ (-0.03\*15.5)

= 1.4-0.465

= 0.935

UCP = (UUCW + UAW) x TCF x ECF

= (15+11)\*1.05\*0.935

= 26\*1.05\*0.935

= 25.53

Estimated effort = 25.53\*20

= 510