

Solutions for Exercise sheet 2

Exercise 1 – Cost Estimation

- i The resulting amount should be $30h * 6 = 180h$ per person, and with $1PM = 20 * 8 = 160h$ it amounts to 6.75 PMs or with five persons to 5.625 PMs.

| | round | estimations ($KLOC_{pars}$) |
|----|-------|-------------------------------|
| ii | 0 | 10, 15, 14, 15 |
| | 1 | 12, 13, 12, 10 |
| | 2 | 12 |

TODO.

- iii We decided for small size, greater innovation, medium deadlines and stable development environment. Because of this we chose $a = 3.0$ and $b = 1.12$.

| | parameter | chosen value | explanation |
|----|--|--------------|-------------|
| iv | Required software reliability | 1 | |
| | Size of application database | - | |
| | Complexity of the product | 1.15 | |
| | Run-time performance constraints | 1 | |
| | Memory constraints | 1 | |
| | Volatility of the virtual machine env. | - | |
| | Computer turnaround time | 0.87 | |
| | Analyst capability | 1.19 | |
| | Applications experience | 1.13 | |
| | Software engineer capability | 1 | |
| | Virtual machine experience | 0.9 | |
| | Programming language experience | 1.14 | |
| | Use of modern programming practices | 1.16 | |
| | Use of software tools | 1 | |
| | Required development schedule | 1 | |

- v The resulting project size in PM is (with $a = 3$ and $b = 1.12$):

$$3.2 \cdot (12)^{1.12} \cdot (1 \cdot 1.15 \cdot 1 \cdot 1 \cdot 0.87 \cdot 11.9 \cdot 1.13 \cdot 1 \cdot 0.9 \cdot 1.14 \cdot 1.1 \cdot 1 \cdot 1) \approx 74$$

TODO differences

Exercise 2 – Process Modeling