**Software Measurement and Analysis**



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**Team assignment 2**

Describing what the Viking project should measure to ensure business value to ABC Systems.

Understand the expectations of the stakeholders such as deliver the Viking product to market within 6 months of the kick-off of this project, within budget and ensure business value to ABC Systems. Base on the world software standard, we suggest the following measure and metric.

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| No | Goal | Question | Measure | Metric | Description |
| 1 | Schedule | How do you know the schedule on time? | - The actual progress (measured by person-month): A  - The estimate progress (measured by person-month): E  - Deviation of the progress estimate (measured by %): D |  | Provides information on how well the project is performing with respect to its schedule. |
| 2 | Risk | How is the risk management process | - Numbers of risk identified (measured by ???): E  - Numbers of problem occurred during all process (measured by ???): A  - Deviation of the risk estimate (measured by %): D |  | Know how much efficiency of the risk management process |
| 3 | Cost | How do you know the cost estimation is accurate? | - The actual cost (measured by person-month): A  - The estimated cost (measured by person-month): E  - Deviation of the cost estimate (measured by %): D |  | Provides tracking of actual costs against estimated costs and predicts future costs. |
| 4 | Change | How is the change management process? | - Numbers of change request approved (measured by change request): X  - Numbers of change request (measured by change request): D  - Rate of change request approved and change request (measured by %): R |  | Know how many percent change are approved |
| 5 | Defect | How are unit tests effective? | - Numbers of defects found (measured by defects): Df  - Number of defects per line of code (measured by defects /KLOC): Sf  - Number of functions (measured by function): Fc  - Number of defects per function (measured by defects/function): Sc | - Defect /KLOC    - Defect/Function | Know how efficiency of debug progress |
| 6 | Customer satisfaction | Is the product’s quality sufficient to warrant release? | - Number of post-release defects found (to calibrate our estimating abilities) (measured by defects): X  - Number of pre-release defects fixed from the product (to assess product quality) (measured by defects): D  - Rate of pre-release defects removed from the product and Sum of that and post-release defects found (measured by %): R |  | Know how efficiency of fixing defect in pre-release |
| 7 | Quality | Are the quality problems fixed? | - Number of defects fixed (measured by defects): X  - Number of defect found by a user acceptance test (measured by defects): D  - Rate of defect fixed and defect found by user acceptance test (measured by %): R |  | Know how many percent of defect are fixed. |
| 8 | Testing | How do we know the testing process good or not? | - Number of test cases executed (measured by test cases): E  - Number of test cases passed (measured by test cases): p  - Rate of test cases passed and test cases executed (measured by %): P  - Rate of test cases failed and test cases executed (measured by %): F |  | Know how many percent of test case passed or failed |
| 9 | Customer satisfaction | How do we know about software quality after release? | - Numbers of customer-found defects 3 month after release of Viking (measured by defects): V  - Numbers of customer-found defects 3 month after release of Matador (measured by defects): M  - Rate of customer-found defects 3 months after release of Viking and customer-found defects 3 months after release of Matador (measured by %): R |  | Know the percent of customer-found defects are fixed or not 3 months after release |