

SE 216 – SOFTWARE PROJECT MANAGEMENT

SOFTWARE MEASUREMENTS DOCUMENT

PROJECT NAME: VitalBand

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Questions to identify measurements:

- At which stages will we evaluate the progress of the project and its success criteria?
- What risks might we encounter and how do we plan to manage them?
- How will the progress and performance of the project be measured and monitored?
- Are VitalBand's sensors and the application's software compatible?
- How accurate is the information received in VitalBand's test results?
- How continuously are the algorithms used by VitalBand to accurately process and analyze health data?
- Does the application have factors that could create security leaks in tests?
- Does the database configuration work properly with the code?
- How much time is spent on debugging?
- How long does it take for VitalBand to deliver the necessary notifications?

Identified measurements:

- Total number of hours spent testing and evaluating for reliability.
- Number of errors found each testing progress.
- Repeatability and consistency of test results are evaluated by testing under different test conditions.
- Using data breach response time to detect and respond to a data breach involving health data.
- Total number of hours spent to solving the errors which is encountered in the testing phase.
- Total number of people work on storage and security.
- Project progress is evaluated by measuring how much progress has been made at each stage.
- Using data encryption rate to store the health data in encryption format.
- It is tested to correctly transfer the value received from the sensors to the application.

Measurement storage and collection:

When- At every development step

Format- Real number data

What- Encountered errors

How- The features developed are tested before release to ensure that it meets the expectations

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Measurement Type	Description	Example Measurements
Management data	Project length measurement tracks the total time elapsed from the beginning to the completion of a software project, aiding in monitoring progress and optimizing planning processes.	Project Length
Management data	Cost measurement tracks the financial resources allocated and expended throughout the duration of a project, facilitating budget management, expense tracking, and ensuring adherence to financial objectives.	Cost
Effort distribution	Hours spent on major activities measurement tracks the amount of time allocated to significant tasks or phases within a project, aiding in time management, resource allocation, and assessing project progress and efficiency.	Hours Spent on Major Activities
Change data	Requirements changes involve altering specifications or criteria for a product or system in response to evolving stakeholder needs, feedback, or project priorities.	Requirements Changes
Product size management	The number of components measurement simply counts the total software or hardware elements within the VitalBand project, aiding in understanding its structural complexity and resource management.	Number of Components
Effort distribution	Hours per week measurement tracks weekly work hours dedicated to the project, aiding in resource management and productivity assessment	Hourse Spend each Week
Change data	Defects measurement quantifies identified issues or bugs in the software, aiding in quality assessment and prioritization of fixes	Defects