What can you incorporate into your project from Software Metrics Topic?

2-Metric: quantifiable measures

- Quantifiable measures that could be used to measure characteristics of a software system or the software development process
- Required in all phases
- Required for effective management
- Managers need quantifiable information, and not *subjective* information
  - Subjective information goes against the fundamental goal of *engineering)*

what about average number user stories completed per sprint?

3-Type of Metrics

- Product metrics
  - quantify characteristics of the product being developed
    - size, reliability
- Process metrics
  - quantify characteristics of the process being used to develop the software
    - efficiency of fault detection

For your sw product

> What is the rating of your software regarding "easy to remember"?
> > 3 out of 5 stars? From 10 persons
> Average time to complete the most important user task of your software
> Average Line of code per module?
> Average time of code per user story?
> Average LOC per member in sprint 1, 2, 3, and 4
> What are some time behavior of your systems?

8-Examples of metrics

- Source lines of code.
- Cyclomatic complexity, is used to measure code complexity.
- Function point analysis (FPA), is used to measure the size (functions) of software.
- Bugs per lines of code.
- Code coverage, measures the code lines that are executed for a given set of software tests.
- Cohesion, measures how well the source code in a given module work together to provide a single function.
- Coupling, measures how well two software components are data related, i.e. how independent they are.

The above list is only a small set of software metrics, the important points to note are:-

- They are all measurable, that is they can be quantified.
- They are all related to one or more software quality characteristics.

For process

> Average time to fix a bug: in sprint 1, sprint 2, sprint 3…
> Total hours spent in sprint 1, 2, 3 and 4
> average number of tasks per user stories in sprint 1, 2, 3, and 4

Can you measure for your sprint 4? Now that you know about metrics
> what about sprint 3, 2 and 1.

After you have metrics can you display as bar charts or graphs?