SOFTWARE MEASUREMENT

SOFTWARE MEASUREMENT:

- A MEASUREMENT IS A MANIFESTATION OF THE SIZE, QUANTITY, AMOUNT, OR DIMENSION OF A PARTICULAR ATTRIBUTE OF A PRODUCT OR PROCESS.

- THE SOFTWARE MEASUREMENT PROCESS IS DEFINED AND GOVERNED BY ISO STANDARD.

SOFTWARE MEASUREMENT PRINCIPLES

THE SOFTWARE MEASUREMENT PROCESS CAN BE CHARACTERIZED BY FIVE ACTIVITIES-

- **FORMULATION:** THIS PERFORMS MEASUREMENT AND DEVELOPS APPROPRIATE METRIC FOR SOFTWARE UNDER CONSIDERATION.
- **COLLECTION:** THIS COLLECTS DATA TO DERIVE THE FORMULATED METRICS.
- **ANALYSIS:** THIS CALCULATES METRICS AND THE USE OF MATHEMATICAL TOOLS.
- **INTERPRETATION:** THIS ANALYZES THE METRICS TO ATTAIN INSIGHT INTO THE QUALITY OF REPRESENTATION.
- **FEEDBACK:** THIS COMMUNICATES RECOMMENDATION DERIVED FROM PRODUCT METRICS TO THE SOFTWARE TEAM

NEED FOR SOFTWARE MEASUREMENT

SOFTWARE IS MEASURED TO:

- CREATE THE QUALITY OF THE CURRENT PRODUCT OR PROCESS.

- ANTICIPATE FUTURE QUALITIES OF THE PRODUCT OR PROCESS.

- ENHANCE THE QUALITY OF A PRODUCT OR PROCESS.

- REGULATE THE STATE OF THE PROJECT CONCERNING BUDGET AND SCHEDULE.

- ENABLE DATA-DRIVEN DECISION-MAKING IN PROJECT PLANNING AND CONTROL.

- IDENTIFY BOTTLENECKS AND AREAS FOR IMPROVEMENT TO DRIVE PROCESS IMPROVEMENT ACTIVITIES.

- ENSURE THAT INDUSTRY STANDARDS AND REGULATIONS ARE FOLLOWED.

- GIVE SOFTWARE PRODUCTS AND PROCESSES A QUANTITATIVE BASIS FOR EVALUATION.

- ENABLE THE ONGOING IMPROVEMENT OF SOFTWARE DEVELOPMENT PRACTICES.

CLASSIFICATION OF SOFTWARE MEASUREMENT

THERE ARE 2 TYPES OF SOFTWARE MEASUREMENT:

- **DIRECT MEASUREMENT:** IN DIRECT MEASUREMENT, THE PRODUCT, PROCESS, OR THING IS MEASURED DIRECTLY USING A STANDARD SCALE.

- **INDIRECT MEASUREMENT:** IN INDIRECT MEASUREMENT, THE QUANTITY OR QUALITY TO BE MEASURED IS MEASURED USING RELATED PARAMETERS I.E. BY USE OF REFERENCE.