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

**SOFTWAREIS MEASURED TO:**

• **CREATETHE QUALITY OF THE CURRENT PRODUCT OR PROCESS.**

• **ANTICIPATEFUTURE QUALITIES OF THE PRODUCT OR PROCESS.**

• **ENHANCETHE QUALITY OF A PRODUCT OR PROCESS.**

• **REGULATETHE 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.** • **ENSURETHAT INDUSTRY STANDARDS AND REGULATIONS AREFOLLOWED.**

• **GIVE SOFTWARE PRODUCTS AND PROCESSES A QUANTITATIVE BASIS FOR EVALUATION.** • **ENABLETHE 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.