CLASS ASSIGNMENT

Software Engineering
MCA-204[T]

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Ques 1 What do you understand by Software Engineering define different defination of Software Engineering?

Ans. Software Engineering is made up of two words.
i) Software
ii) Enginuring.

Software :- It is an Calculation of executable programming code with associated libraries and documentation.

Engineering :- Engineering is the application of scientific and practical knowledge to invent, design, build, maintain and improve frameworks, process etc.

Software Engineering is an engineering branch related to the evolution of Software product using well-defined scientific principles techniques and procedures. The result of Software engineering is an effective and reliable software product.

Que. What are the basic characteristics of the Software?

Ans. Software is defined as collection of programs procedures rules and data. Software characteristics are classified into six major components:

Functionality: It refers to the degree of performance of the software against its intended purpose required functions are:
Suitability, Accuracy, Interoperability, Compliance, Security.

Reliability: A set of attributes that bear on capability of software to maintain its level of performance under the given condition

⇒ Recoverability
⇒ Fault tolerance
⇒ Maturity

Efficiency: It refers to the ability of the software to use system resource in the most effective and efficient manner. The software should make effective use of storage and executive command as per desired timing.

Usability: - It refers to the extent to which the software can be used with easy.

- Understandability
- Learnability
- Operability

Maintainability: - It refers to the ease with which the modification can be made in a software system to extend its functionality, improve its performance, or correct errors.

- Testability
- Stability
- Changability
- Operability

Portability: - The ability of software to be transferred from one environment to another without or min. changes.

- Adaptability
- Installability
- Replaceability

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Que: What are the various categories of Software? differentiate between firmware and Embedded Software?

Ans:- There are mainly three types of Software

1. Application Software: office suites, word, spreadsheet etc.

2. System Software: operating system, device drivers, desktop environment etc.

3. Computer programming tools: assemblers, compilers, linkers, etc.

Firmware	Embeded Software
Firmware is usually found in general purpose computing devices like Smartphones, PCs, laptop etc.	Embedded Software is usually found on Special purpose computing devices like Embedded Systems.
The firmware does not include the end application	Embedded software includes the end application
The firmware is not the only Software that runs on the System	Embedded Software will be the only software that runs on the System
Firmware is stored in a flash memory either inside or outside of a microcontroller	Embedded Software is also stored in a flash memory either inside or outside of a microcontroller.
A Typical example of firmware is the Software that comes with a computer motherboard	A Typical example of Embedded Software is the Software that runs an mp3 player.

Ans. 4 Differentiate between Software process and product.?

Ans.

Software process	Software product
- It is a set of sequence and steps that have to be followed to create a project	It is the final production of the project.
- Focuses on completing each step being dweloped	focuses on the final result
- It consistently follows guidelines.	The firm guidelines are followed.
- It is tend to be long term.	It is tend to be short term.
- Purpose is to make better the quality of the project.	Goal is to complete the work succenfully.

Qu.5 Which activities are known as software proces umbrella. activities.?

Ans. Umbrella activities of Software proces.

⇒ Software project ~~Contro~~ Tracking and control:-

It keeps the back on the shedule or the dwelopment of the Software. Also Controls the proces of the dwelopment.

Formal Technical Reviews:- This is done in clusters of modules and cheeks the errors and removes it after each module before progressing in next module.

Software quality Assurance:- when quality of software is tested and confirmed after searching a certain targets it helps in making overall Software of best quality.

Measurment and Metrices:- Include all the measurment of every aspect.

Software Configration management:-

SCM is a set of activities to control changes, establishing relationship difining mechanism for managing different version.

Document prepration and production.:-

All the project planning and other activities. Should be handly copied and the production get started here.

Re- Usability management:-

Backing up each part of the software so that it can be easily used in future or can be updated in future.

Risk Managment:-

It is to identify, anss probability of occurence, estimating its impact and establishing a contingency plan before the error occurs.