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READİNG ASSIGNMENT 1

Subject: Software System Engineering: A Tutorial

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Software System Engineering: A TUTORİAL

Nowadays Software system like everything in our life getting complex status. People working on improve software find themselves in that and have to find a solution. For example in air traffic we have so many input from outside, have to take this input about some designing rule so we can product a useable output. For this we have some engineering method. This method show us how can we build a software step by step.

SYSTEM AND SYSTEM ENGİNEERİNG

System mean is collect some product and buıld with this product an objective. For computer system is collect of relative object (user, hardware, applications, mouse, monitor).System engineering is build a way for using this materiel with most useable form. System engineering not buıld hardware of software just build an effective way. System Engineering have five step. All this step allow us know before starting a project which tools we will use which environment we in. First of this step definition our problem. So we know what our is aim. Second step is solution analysis in there we find possible solution and review them. Thirds one is Process planning in there we select a solution way and how much effort we need and risk of it. Forth step is Process controlling determined our method and review product. The last step is Product evaluation check the product station mean analysis and quality. System Engineering is imported for all project.

WHAT IS SOFTWARE SYSTEM ENGİNEERİNG?

The history of Software system engineering began at 1980 with Winston W. Royce. SwSE basic mean is that branch of systems engineering concerned with the development of large and complex systems. SwSE is not a job. It is a plan schedule and just create document, not have any components. Focus point is on how design and manage complex engineering projects over their life cycles. When we apply SwSE in a project we get intensive systems in an economic and timely manner.

SwSE and Software Engineering

SwSE and SE both are technical and management but SE are have document and product components which one will be build. In SE also we have to manage process and analysis construction and maintenance. SwSE is responsible software requirements, analysis and testing.

SwSE and Software Project Management

Project Management is using all resource in specific time with a schedule about cost and risks. Design group and make control process. In same time project management SwSE determine

the technical approach and interfaces and make decision but .SE interest for developing software part, testing and get product useable mode.

THE FUNCTION OF SOFTWARE SYSTEM ENGİNEERİNG

Requirements analysis

Firstly, we have to find requirements so we analysis what user want. Then determine documents, then divide sub-system all requirements. We can look requirements in three category; Functional, Performance and External interface, Design constraints, Quality requirements.

Software Design

Software Design is select document effective way and effective material for developing. So can implement requirements in logical way. Software Design in two component, first one Architectural design in there selected system structure and software requirements like storage, operating system, data flow and interface. Second one is Detailed Design which about component engineering.

Process Control

Process Controlling is answer the question what is going on project and what is next step. In schedule everything is okay or not. Control must is going by schedule if have any problem try to solving as soon as possible.

Process planning

Process Control goals and objectives are the strategies, plan, procedures must be how designed. And it ask us a few question. How to do, Who will do it, When to do it.

Verification, validation and testing

Check product is respond requirements. For Verification is asking us are we on right phase? If answer is okay this requirements is okay. Validation aim build right product. Testing allow us to know the product work correctly and everything is okay.