

When top companies want to develop impeccable Systems, this is what they do

4th March 2016: Mrs. Usha is a certified Project Management Professional (PMP®), with a post-graduation in Computer Science (M.S. from NY, USA). She has worked at IBM in the Management cadre for ~8 years. Usha has sound knowledge and experience on Products & Projects related to Service Oriented Architecture (SOA), JAVA-J2EE Web Apps, Databases and Mobile Apps. She is currently the Principal Group Manager at ROLTA India Limited, heading the BMS Product Management.

Our Department had invited Usha to conduct a session on “Project Management” & “Agile Methodology”. Ms. Usha said that Project management by itself implies the use of various principles, tools, software methodology an example of software methodology could be the well-known “Agile Methodology”. While getting to know what the industry incorporates in their day to day execution, one needs to be aware of the various Project Management areas and the different project groups like initialization, planning, execution, design, development, testing and launching activities that are conducted when the product is done. She took an example to help us understand better. She said when a new model of an existing product is released the life of the older model comes to an end meaning if Samsung S5 is released then the sales of the previous model S4 going down is imminent. She mentioned that the book called ‘The Project Management Book of Knowledge’ is the best available option for reference, there are certain exams that one may need to appear for, but for this the respective individual needs to have four years’ experience as a project manager. She said that during the initiation phase, we first define the project, such as preparing the business case for example ‘the amount of cash needed to be given to an employee’, identifying the stakeholders. She highlighted that during every project initiation phase a stakeholder register is maintained.

Mrs. Usha continued that if we would have to break down the concept of Project Management, we would end up with a matrix like structure. Whose rows consisted of various knowledge areas like Project Integration, Project Scope, Project Time, Project Cost, Project Quality, Project Human Resource, Project Communication, Project Risk, Project Procurement and Project Stakeholder Management. The columns as a whole were called as Project Management Process Groups which includes Initiating, Planning, Executing, Monitoring & Controlling and closing process groups. Next she went on to explain each Knowledge Areas with their corresponding process group. Scope management plan is an integrated plan which includes scope validation and scope control. For example when we simply say a product it can be either software or hardware. Now speaking in terms of software alone we might somewhere come across User Management. User management is further broken down into ‘Authentication’ & ‘Authorization’ this is called as work break down. Time management has some six to seven activities together known as schedule management. She said that it is very necessary to estimate each activity with a timeline structure. Identify each individual’s good qualities and assign roles to them appropriately. Next spoke about duration or simply the time required to complete a project. With regard to duration she said that all deadlines should be met and work should be carried out parallel with time. While speaking about ‘Budget’ she said that many factors need to be taken into

consideration while approximating it. This is an operational cause but it's equally necessary to calculate the effort that is involved. She gave an example such that if a certain task is completed by 5 people in 4 days then a single person will take 20 days to finish the same job.

The next concept she began explaining was about Project Quality assurance. The quality assurance ensures that while delivering the product there should be no more than 5 defects. Communication management involves the mode of communication that you are going to hold, between the various members that are involved in the project development. She said that one major factor which has to be given uttermost importance is 'Risk Identification' known risks can occur when proper requirements are not provided by the customer. Some examples of unknown risks include server is crashed, loss of data or unavailability of backup. She continued that if the scope is not defined properly then qualitative risks can occur. Quantitative risks include time and costs. She gave an example for costs like the procurement costs for buying a PC, license software etc. All these articles are needed to be performed in time so that we do not cause any delay in the product. Out of nowhere Mrs. Usha started speaking about something called as 'negative stakeholders', these negative stakeholders show pessimistic approach for whatever work is done incorrectly.

Next she went ahead by explaining the Execution Task. She said it was necessary to first allocate human resources such as (people) to make any project get going. Once a team has been formed it follows the general steps like planning, analysis and design. When the design has been completed the performance check is carried out. This check is carried out on a prototype in order to determine whether the idea is feasible to implement or not. She said that while a team may work together in all aspects related to the development of the system, at the same time it is essential for them to communicate with the project managers and stakeholders this can be done by sending weekly reports. She provided emphasis on the fact that various charts are also used for reporting purposes for example, a network diagram can be used. This diagram basically gives the sequence of various task. Mam Usha then started on with scope limit, she described that while developing a system a cut-off is essential to prevent the customer from putting more scope every day.

The next concept that Mrs. Usha spoke about was relevant to everyone as we had already learned about it during the earlier semesters. She said while developing a system, every organization needs to follow a particular method or model for example something like the 'Waterfall Model'. She continued that the waterfall model follows the traditional approach. Next she moved on to 'Agile Project Management' she described it by saying that it was similar to the spiral model which we have learned through our syllabus. Since the Agile model was almost similar to the spiral model it also behaved like it, for example during the early first stages the requirement is done. During the second stage or we could also call it the second iteration a new list of requirements is created. In order to explain the agile methodology she gave an example saying suppose in a team consisting of ten members. Then all the tasks that must be performed by each individual member are listed in a 'Backlog' and almost every day a review is taken. The customer also provides feedback for the same which is called a deliverable.

Racing against time she started with the Agile Framework which is otherwise also known as 'Scrum'. In Scrum she explained the block diagram, telling us how the flow takes place and explaining the meaning of the various terms mentioned on the presentation slide.

The next topic was a Burndown chart, she said that this chart with days on the X-axis and the effort on the Y-axis depicts the number of hours that are burnt down i.e. in simple terms the effort taken for the same, with this her presentation had ended. She thanked the class for patiently listening and enquired if anyone had some questions for her. During the entire presentation she also mentioned certain project management software's for every licensed software she also provided an alternative open source version. Like when licensed software was 'Microsoft: MS Project' the corresponding open source software was 'dotProject' and when the licensed one was 'IBM: Rational Team Concert (Jazz)' the open source software was 'Agilefant'.

The session conducted by Mrs. Usha was a truly informative one. We got to know about certain new concepts and terms that we usually don't find. We learned about the huge matrix like structure used by companies while developing new systems. During the presentation we revised our knowledge about the Waterfall model that follows traditional approach and learned some new details about the agile model. Within the agile model we learned about two new concepts first is the agile methodology also known as scrum and the burndown chart and to add the cherry to the cake we became aware of some open source software's too!