Lecture Software technologies

15.11.2018

Project management

Why project management

Everything we do is a project and you should create steps, algorithm how to achieve our goals.

Project Concern = deliver on time and within budget (by budget we mean time, money etc.)

What is project management?

*Project management* = Plan the work and work the plan

Management functions

* Planning
* Organizations
* Staffing – motivate and delegate work
* Directing – make sure the team works in the right direction
* Monitoring (Controlling) –

Risk management

*If you don’t actively attack risks, they will attack you.*

Project risks

* Technical risks
* Project risks
* Business risks

Management must:

* Identify as early as possible the risk
* Assess whether risks are acceptable
* Take appropriate action to mitigate and manage risks
* Monitor risks thought the project

Risk Management Techniques

*Personal shortfalls* - staffing with top talent and team building

*Unrealistic schedules and budget* – Detailed muilti-source cost and schedule estimation; incremental development

*Developing wrong software functions* – users- survey prototyping; early user’s manuals

Focus on Scope

The client speaks with his own language and in every project there is misunderstanding between the client and the developers.

Myth

“ A general statements of objectives is enough to start coding”

* In order to plan you must set clear **scope and objectives**
* Objecctives identify the general goals of the project
* Scope identifies the primary functions
* Goals must be realistic and measurable

Estimation strategies

Expert judgment

Estimation by analogy – Compare with other projects

Parkinson’s Law: Work expands to fill the time available

Pricing to win: You do what you can with the budget available

Algorithmizing cost modelling

Some laws of Project management

* A carelessly planned project will take three times longer to complete than expected
* A carefully planning project will only take twice as long
* Project teams detest progress reporting because it manifest their lack of progress

Good planning depends largely on the project manager’s intuition and experienced

* Split projects into tasks
  + Tasks into subtasks
* For each task estimate time
* Significant tasks should end with a milestone
* Organize tasks concurrently to make optimal use of workforce

Planning is iterative => monitor

Myth

“The only deliverable for a successful project is the working program”

Reality:

“Documentation of all aspects of software development are needed to ensure maintabilixcty

What to do when we are late with the schedule

* Take more people to the project
* Ge tan expert who will help to the team