

Research Article

A Preliminary Review on Resource Allocation Within a Software Team

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Abstract:

Currently, in the IT industry people factor has become more crucial at the time of determining the project quality. Resource allocation in modern software engineering is the art of recognizing the best available resources for the project, then assigning them to a team and monitoring their workload throughout the development process, and re-assigning resources if at all required. There exist no quick and ready-made solutions for the human resource allocation problem. Project managers however can estimate by using tested guide-lines that are based on experience and data. In software projects, one cannot even precisely answer how accurate is the allocation of a resource is because the only way to ascertain the accuracy of allocation is to compare it with the actual available resources. Hence the project manager's goal is to allocate the available resources to maximize employee productivity. There exist many commercial tools for allocating the task to the employee but no intelligent tool is available to automatically delegate the work among the team. This method will make use of existing project-related data to find the useful information of the work that is done by the team member to automatically allocate the new task.

Keywords: Resource allocation, Modern software development.

I. Introduction

Generally speaking, any Software project has two main activity dimensions: Engineering and project management.

The first dimension will deal with building the system and focuses on issues such as how to design, test, code, etc. The project management dimension that deals with properly controlling and planning the engineering activities to meet project goals. To perform various tasks a well-defined process is required so that the output becomes more dependent on the capability of the process. The project manager has to follow the process because:

- A Process represents collective knowledge. Using which will increase the chance of success.
- A Process may have extra steps, but always never know before-hand which ones are not required, and hence will increase the risk by taking shortcuts.
- Without process, we cannot predict much about the outcome of the project.
- Organizations cannot learn effectively without having a defined process.

Principles of resource allocation:

Compartmentalization: The project should be disintegrated into manageable tasks and activities.