

**TASK OF WORK DISTRIBUTION FOR THE DEVELOPMENT
OF PROJECT SOLUTIONS IT-COMPANY**

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The Hungarian method is one of the most in-demand mathematical method required nowadays. It helps to solve the distribution task of human resources and find the most optimal result of the assignment task. The development of this method includes all its strengths and weaknesses that it can provide in order to find the smartest way of solving the assignment task and can be used by IT-companies.

The global IT-industry is developing dynamically, and the number of IT-companies is constantly growing. The project manager in every IT-company have to organize the team's workflow and create optimal conditions for the implementation of project tasks, relying on the skills of each employee and the requirements for the project task.

The importance of assigning tasks between team members should not be underestimated, because otherwise a certain startup may never come to life due to the incorrect distribution of work among workers at the very beginning of its creation.

Therefore, in order to maximize the quality of its project solutions, every IT-company pays a lot of attention to the distribution of tasks among employees, and has a very special attitude to the process of defining and assigning tasks.

However, despite the importance of this process, it is still carried out without the use of automated algorithms for solving it, so an attempt to automate the process of assigning tasks between team members looks quite justified and expedient [1].

In addition, the implementation of an automated way of solving the task of assigning tasks between employees can not only improve the quality of project solutions of an IT-company and reduce the probability of unsuccessful startups associated with an unbalanced or irrational distribution of work among team members, but even reduce costs and increase profit of IT-company.

Therefore, the process of dividing the workflow and assigning types of work between employees is the foundation that determines the success of further processes of developing project solutions and undoubtedly affects the competitiveness of the IT-company, determining the determination of investors.

The relevance of the work lies in the fact that in the conditions of a constant increase in project tasks that appear before IT-companies and require

the involvement of an increasing number of employees for their implementation, the issue of implementing and using an automated method of solving the task of assigning tasks between employees, which is capable of to speed up this process and eliminate errors related to the human factor.

The purpose of the work is to develop a software application with a simple and understandable interface that could solve the task of assigning certain types of work between employees in order to obtain the highest efficiency of the IT-company's activities.

The task of finding the optimal distribution of workers for all works is a kind of resource allocation task, and therefore, due to its peculiarity, it can be solved by different methods: the method of potentials, the Hungarian method, and the method of limits and branches.

However, since it is a special case of the T-task, the most appropriate method for its solution will be the Hungarian method, because it is one of the oldest and most common computational iterative methods for finding a solution to a given class of tasks.

In the process of solving the task of assigning certain types of work between employees in an IT-company, such factors as the performance indicators of each employee, the requirements for the performance of work and, accordingly, the number of employees and works, which must be equal and subsequently established among themselves in the course of solving the Hungarian by the method [2].

When developing a software application, the following requirements are put forward for its information support: a convenient and understandable user interface, combined with the necessary functionality, and efficiency.

The software application is developed using the PyCharm development environment using the Python programming language, which is characterized by special code readability and cross-platform compatibility, and the Tkinter library, which provides the ability to create simple and understandable window interfaces.

The developed software application implements the main functionality of the specified task, is fast in development, has a simple and clear interface and is characterized by simplicity and flexibility in development.

References:

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