

## **OFFICE CROWDSOURCING FOR BIG COMPANIES**

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Many companies usually work on many projects simultaneously and in the majority of cases this leads to the lack of manpower, which makes the companies to hire new staff, use the consultant services or find other solutions to solve the issue.

One of the solutions is an internal distribution of the projects between the company's employees, which have an opportunity to work on these projects in some of their time. Small companies are able to follow the workload of its staff, therefore it is easy to find recourses for the completion of these projects. On the other side, the search of available time in some ways is a problem for medium and big companies, and also searching for the employees with required skills for the completion of these projects.

The solution of this problem could be a creation of the platform. For project managers, the platform provides an opportunity to publish the projects determining the required skills and time needed for these skills. With respect to the employees, the platform will give an opportunity to enter the information on them or import their information from the external services, add their skills and time available per each skill. During the publication of the project the staff with suitable skills for the project will receive notification on available project and will also have an opportunity to apply an application on participation in this project, which should be confirmed by the project manager.

The platform will consist of 3 main components. Backend service – component will interact with database and other external services and will provide interface with methods to interact with given component. The following tools will be used to implement this component: Java, JAX RS, Dropwizard, Postgre, Shell, Docker, Kubernetes, IBM API Connect, Jenkins, SonarQube. Web frontend – component will provide a convenient web interface for client-server interactions. The following tools will be used to implement this component: Java, Javascript, React, HTML, CSS. Mobile frontend – component will provide cross platform mobile application for client-server interactions. The following tools will be used to implement this component: C#, Xaml, Xamarin.

The purpose of further research is to create and study the software implementation of the proposed platform in order to optimize its structure for specific companies.