

ASK

Project proposal

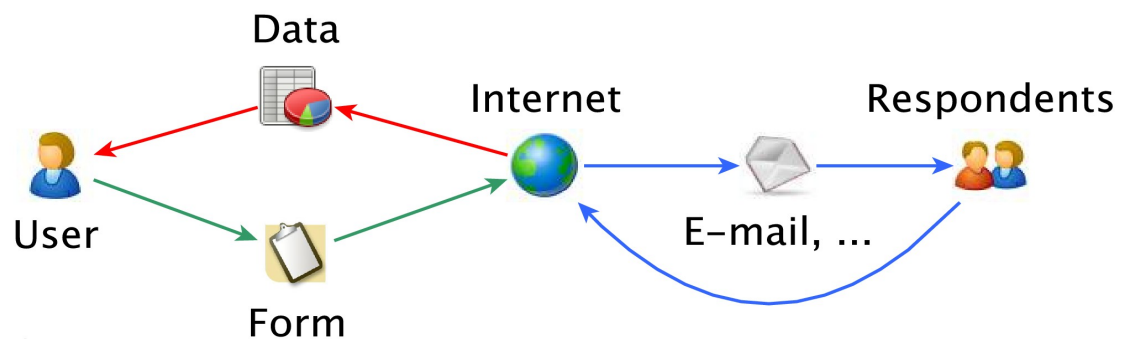
Introduction

The goal of ASK project is to develop a system for creation, distribution, completion and analysis of web forms.

Contemporary solutions require the installation of special software either for the forms creation or forms completion (Microsoft Word forms, Adobe PDF forms, 602XML) and usually offer poor possibilities for overall form management. There are also several on-line services which offer similar capabilities. However, these services can not be installed as part of the internal infrastructure and one must rely on external services.

Our project will not require any special software for the forms creation. On the client side, a modern internet browser will be required to fill out the form. On the server side, application will run on a standard IT infrastructure. Our solution will also provide an environment for a form workflow management covering the creation, completion of the forms by respondents and analysis of the form data. It will be possible to manage multiple forms in one integrated environment.

Project will be developed in cooperation with Baader Computer s. r. o.



Overall Project Scheme

Participants

Team

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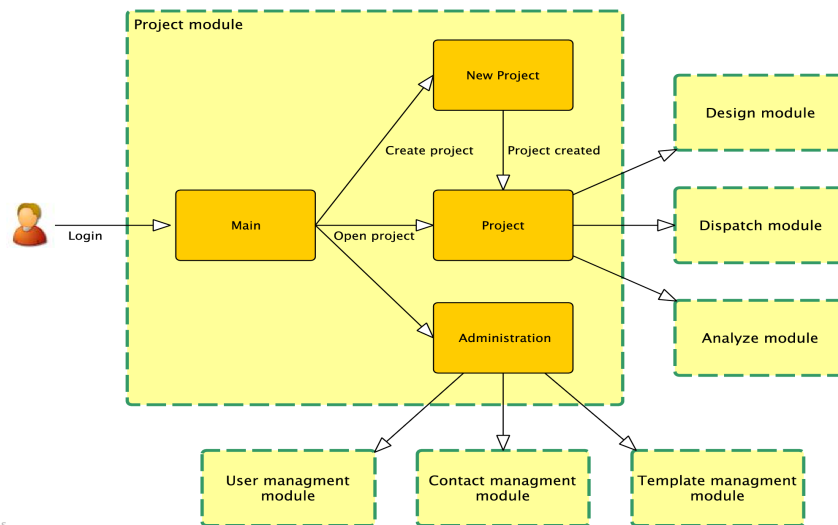
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Description

ASK consists of two main parts - agency part and respondent part. Agency part is used to create projects. These projects represent units of work for the user. The project includes form, the contacts to which the form is about to be sent and the analysis of the replies.

Agency part is divided into subsequent modules. Each module encapsulates separate functionality. Following picture shows the interaction between modules.



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Flow between modules

Project module

Project module coordinates the cooperation between other modules. When the user logs on, he will be offered the main control window. Among the features available will be the application settings and the work with the projects. Project represents a single survey and all data associated with it.

User management module

User management module covers the work with the user accounts. That means the creation of new accounts, removal and blocking of existing accounts, user rights management. The users might be organized into groups.

Contact management module

The purpose of the contact manager is to manage contacts. The contact information include email address and additional contact information such as name, address etc. Contacts might be added, edited and removed and might be organized into the contact groups. Contacts will be used as email recipients in Dispatch module.

Email template module

The module manages the email templates. Email template is the saved text of the email ready to be loaded and sent to the respondent. The work with the templates includes creating new ones and editing or

removing the old ones. The templates created in the component might be loaded and used in dispatch module.

Design module

Design module is used to create form design. The user creates form using form editor. The form can contain elements like text area, select box, radio button, check box button, text area, etc.

The user might set the properties of these elements like size, colors and others. Data constraints may be set to input values. The form might also contain non-input elements like static texts and images. The elements could be aligned. Creation of multi-page forms will be also supported.

Form editor will be inspired by form designers used in common IDEs (Delphi, NetBeans, ...).

It will allow

- dynamically place form elements on the form draft from component palette
- change properties of component in property inspector
- create runtime dependency between components (e.g. after the respondent answers gender field, show different fields to man than to woman)

Dispatch module

Dispatch module distributes the emails to the respondents. It is used to send invitation email (email that invites the respondent to fill out the form) and thanksgiving email (email thanking the user for his reply to the form). In the dispatch module the user might create a new email from the scratch or use the existing templates created in the template manager. Similarly, he or she might send the email by choosing from existing contacts managed by contact manager or add the new contacts manually.

Analyze module

Analyze module serves the user as an interface for the project evaluation, project status monitoring and project results view. The project results might be exported. Basic aggregate functions, predefined for the result types, might be applied on the results. The results might be presented using charts.

Respondent module

Respondent module is a standalone part of the application that displays the form to the respondent and offers the respondent the possibility to fill out the form. The access to the application is provided by connecting to the web address given the URL sent to the respondent in the email. The respondent need not log in. The input values supplied by the respondent will be validated instantaneously according to the restrictions defined during the form creation. The interface enables the respondent to save the partially filled form, to print it and to send it.

Implementation

The project will be implemented on Java platform. The data will be stored in PostgreSQL database. The Hibernate framework will serve as a bridge between Java and the database. The Java Server Faces framework will be used for the purposes of web interface.

Project challenges

One of the challenges of the project is to find an effective way of storing the form design and filled form values to the database.

Not least challenging is the goal to create the web interface rich in features and easy in use.