

Information system Alumni

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Abstract. The information system for communication with graduates represents one of many ways how university can keep in touch with its graduates. Except for communication between university and its graduates, the information system should allow communication between graduates themselves and their personal presentation in public. The system also should collect actual information about working experience of graduates, which can improve faculty credits and teaching process. The presented information system includes all these points and focuses on security, usability and comfortable user interface.

1 Introduction

Communication between graduates and university can be suitable for both sides. In this article we would like to introduce web based software system called ALUMNI developed at Team Project. Our faculty has ambitions to present its graduates to the public. The faculty also wants to keep in touch with its graduates using web application, providing a channel for professional and social communication between graduates themselves and the faculty. The ALUMNI project focuses on design and implementation of the system that would accomplish these needs.

A FIIT STU graduate is a person who has been studying at this faculty for at least three years or more. During this period graduates establish a lot of social contacts with their classmates and their teachers as well. After graduating, these contacts are usually broken and only rarely continue. Generally, after a student leaves the university, he loses most of his contacts. However, the faculty does not want this trend to continue. The

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faculty can see its graduates as potential business partners with possibility of cooperation after the studies. Graduates are very good source of information and critics that could help to improve the quality of the faculty. The best way how to gain required information are feedback forms.

2 Business goals

Present basic information about graduates to the public. It means creation and maintenance of the graduate database and presentation of basic information about individuals to the public on the web without access restrictions. The ALUMNI information system should provide brief information about a graduate such as when he studied and finished school, his specialization, topics of his bachelor and diploma project and abstracts of these projects. If we are able to get necessary information, the presentation could also involve a graphical expression of employment and skills of a graduate from different points of view.

Provide gathering of actual information about graduates in practice to the faculty. It means to get actual information about contacts, jobs, career development, application/professional focus, areas of graduate activity and personal interests, etc. This information is provided by a graduate. It has a personal character, it means getting them requires interest in contact on the both sides and this data should be under protection with well-organized authorized access.

Enable communication to graduates. The system should provide easy and safe way of communication in informatics community protected by well-designed access rights for groups of authorized participants. This feature should provide informal communication within community of colleagues and experts from practice. Except this, the system should also inform graduates about professional activities of the community and provide some space for them - a forum, eventually some other activities.

3 System ALUMNI

Alumni is web based application that can be accessed using common web browser. The basic user interface is shown on Figure 1.

The most important functions are:

- *Actualities* represent a tool for the faculty, which allows to inform graduates and public about news and events on the faculty.
- *Inquiry module* serves for collecting information from graduates. The faculty can generate various statistics based on the inquiry results. An inquiry is created by a person authorized by the faculty. Every inquiry can be targeted on a selected graduates group depending on the year of graduate. Inquiries are accessible to graduates after logging in Alumni system.

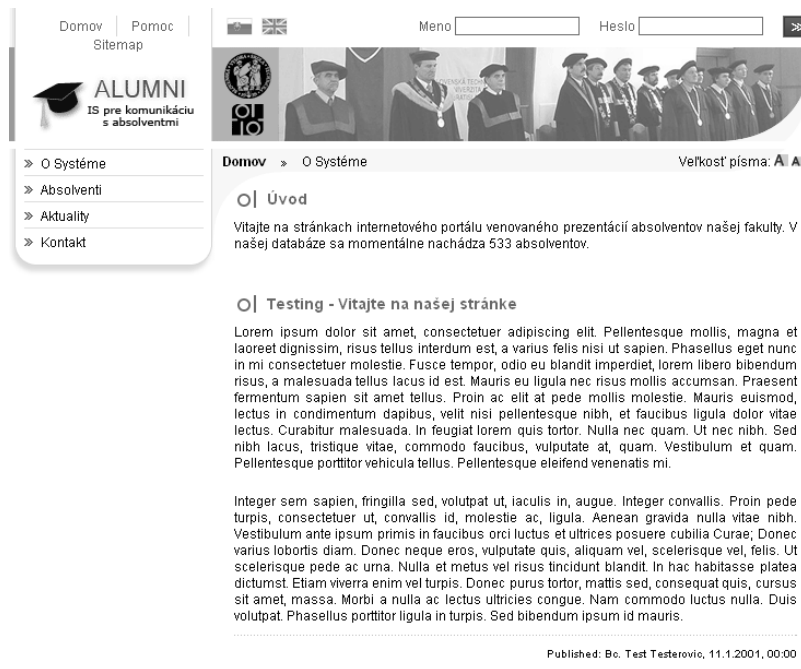


Fig. 1. Basic user interface.

- *Mail communication* ensures the communication between faculty and graduates and graduates themselves using message exchange.
- *Personal presentation.* Every student that graduates is automatically added to Alumni database and a personal account is created for him. Personal profile of graduate includes information such as name, surname, study program, year of graduate, academical degree and information about thesis or diploma work. Optionally other personal information can be added to personal profile, for example e-mail, phone or ICQ number, link to personal web page or information about current employment.
- *Module of statistics* collects various statistical information. It operates on data from inquiries, graduates personal data and allows generating reports. This module also counts system visit rate. Outputs from various statistics can help the faculty to improve the quality and adapt to new requirements.

4 Architecture

The main requirement for design architecture is the best accessibility for graduates and the public. The client-server architecture based on the web technologies fulfils this requirement. The whole interaction with the system runs on the internet browser, which is common part of operating system. The interaction doesn't depend on application part of the server. Business logic and functionality are implemented right on the server and it depends on actual implementation.

System logic on the side of the server is divided into several modules, which provide whole functionality of the system. All modules are created on the PHP framework CakePHP, which is a kit for rapid development. This framework makes implementation of the system much easier, because it has already included solutions for basic web application development problems such as authentication, database access, presentation, etc.

The CakePHP fully supports the MVC (Model-View-Controller) model [1]. This model divides the system into three functional parts Model, View, Controller. Relations between these parts are shown on Figure 2.

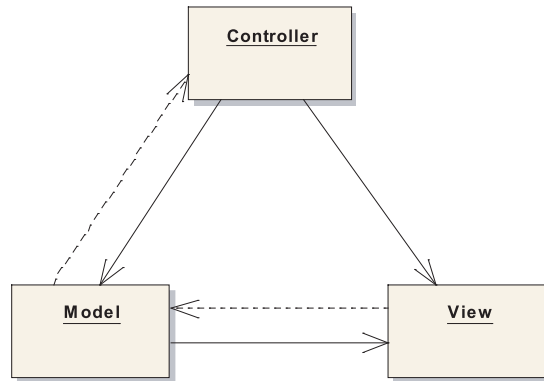


Fig. 2. Model-View-Controller.

Model. It represents the part, which takes care of collecting and storing data. This means database and controlling scripts, which execute actions on this database. The data gained in the part Model are provided to the part View.

View. This part takes care of the data presentation to users. This means user interface. The part View in the web systems represents HTML output, which will be displayed in the internet browser as an internet web page. The part View represents presentation part of the system, which can also include presentation logic.

Controller. The part Controller takes care of administration of the actions executed by a user or by the system. These actions are then transmitted as some changes in the

part View or in the part Model. In the part View we mean for example page changes. In the part Model it is for example saving new information to the database. Controller can include also business logic.

5 Conclusion

We designed and implemented the ALUMNI information system. This system will be available for general public use through the web interface. A non-registered visitor can look at the list of graduates according to year of graduation or a field of study. He can also look at graduates profiles. The level of profile details shown to the public is limited. By default, a public visitor can only see name and surname of a graduate, year of graduation and a field of study. The faculty endeavours to propagate its graduates. Therefore graduates can also add some information about themselves into the system during the study such as working experience, knowledge. Graduates can enable to display this information in their profiles for public visitors. Inserted information can be used as an input for generating graduate's curriculum vitae in pdf format, which is provided automatically. It is in a graduate's competence, which information will be displayed in their profiles and will be shown to general public. Public also includes searching pages with their crawlers. A graduate can use it for the building of his virtual web identity on the internet.

Our Alumni system solves the problem concerned with graduate's feedback to the faculty with an inquiry module. In this module the faculty can define questions with answers which active graduates can respond. This module should be used for collecting data which are not included in graduate's profiles and have high information value for the faculty.

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References

- [1] CakePHP Homepage. <http://www.cakephp.org>.
- [2] Cich P., Garaj J., F.P.H.J.H.J.: Informacny system pre komunikaciu s absolventmi, 2007.
- [3] Durajka F., Elias J., P.J.R.L.V.M.: System na evidenciu a prezentaciu absolventov, 2006.