

ELECTRONIC APPLICATION FORM AT BUT BRNO

Roman PETRUCHA, Master Degree Programme (5)
E-mail: xpetru03@stud.fit.vutbr.cz

Lukáš ROTTER, Master Degree Programme (5)
E-mail: xrotte00@stud.fit.vutbr.cz
Dept. of Information Systems, FIT, BUT

Supervised by: Prof. Tomáš Hruška, Dr. Jaroslav Zendulka

ABSTRACT

An information system is an inseparable part of every organization in these days. An information system called STUDIS, which is now being developed at the Brno University of Technology (BUT), is expected to integrate all services related to study affairs. The part of the system that is realized first is the subsystem for admissions. The method of enrolment administration the university used in last years was very restrictive and out of date. The only possible way was to fill in a paper application form and deliver it to the university. But with the massive growth of Internet, it is a question of prestige for the university to provide an alternative choice of enrolment through Internet. The objective of our work was to develop application that allows using an electronic application form and that provides administrative support related to admissions.

1 INTRODUCTION

In summer 2002, there started development of a completely new information system BUT - STUDIS aimed to cover most of the administrative work done by study departments and teachers related to study affairs. Maximum utilization of Internet technologies was also one of objectives. An electronic application form subsystem represents one of its parts. The electronic application form is the first project that will be fully based upon the newly developed STUDIS database.

The electronic application form will be used as an alternative to a paper application form at our university already this year. Unfortunately, it is not real to create a full version of the electronic application form. That's why, only a version for applicants from the Czech and Slovak Republic will be available. A complete version will be finished in the course of the summer semester. Its full use is considered for the next year.

One of problems that caused not full use of the electronic application form this year was that there are faculties (Faculty of Architecture and Faculty of Fine Arts) where admissions started earlier in comparison with other faculties. Therefore the electronic application form will not be applied there. All other faculties will already be able to use the electronic

application form.

For the whole agenda of admissions, not only the electronic application form must be created, but it is also necessary to create even a special application for study officers which will enable them to fill data from received paper application forms into the system.

2 ADMISSIONS

The term “admissions” is the process an applicant for study must pass through provided that he/she satisfies all requirements specified by the admitting subject (some faculty of BUT in our case) so as to be admitted for a regular study at the university. To be registered in the databases of applicants, the student must fill in the application form (either the paper or a new electronic one), send it to the faculty’s address and pay a handling fee by the date determined by the faculty the student is applying to.

2.1 ADVANTAGES OF APPLYING IN ELECTRONIC WAY

The electronic application form has the following main advantages:

- Demands on the applicant being connected with procuring and filling in the paper form are decreased (the applicant does not have to know particular names of programmes and courses opened in the respective academic year, the applicant just selects data offered to him).
- The payment of handling fees is simplified.
- The occurrence of mistakes resulting from filling in the paper application form is eliminated (submitted data are immediately checked being compared with the data in catalogues, validity of the birth number and other data is checked as well).
- The necessity to check the submitted data and to insert them successively into databases at the level of study departments of individual faculties is eliminated.
- The necessity to post the filled application form is removed.

2.2 REALIZATION

In the first phase of our project, it was necessary to examine database structures of the old system called STUDENT and to understand which processes must be performed in the course of the admissions. Persons who see admissions from being admitted point of view do not see everything what is done in the background. The original system did not enable any possibilities of electronic application. Therefore, we had to completely re-elaborate the whole structure of the database to enable it. During analysis and design, we followed not only the requirements resulting from the electronic application form itself, but we also followed requirements resulting from other services supporting study affairs. Upon the basis of negotiation with individual faculties, we received requirements on the content of the electronic application form. We managed to agree on a maximum simplification of the content (especially in the field of submitting marks from secondary schools). As a result, submitting the data into the application form and even its successive processing has been substantially simplified.

Concurrently with our project, realization of the application on the Apollo platform is carried out. It will contain a thin client allowing study departments at faculties to access the whole system. One of services utilized by the study departments will enable to insert data from paper application forms, which is possible this year, into the information system. This project also employs the results of our analysis. The data from paper application forms entered by means of the Apollo application and from the electronic application forms are stored into the same data warehouse.

For realization of the electronic application form, we have chosen the Oracle 9iAS Portal technology. We use PLSQL, JAVA and JavaScript language. The portal enables to access the application directly from the web through the mediation of a standard Internet browser (the result code is generated in HTML).

2.3 APPLICATION

First, the applicant will write his/her personal data into the electronic application form. Further, the applicant is expected to choose a study program he/she intends to study at BUT. After selecting the study program, the applicant submits information being required by the respective faculty (marks from the secondary school etc.). If the faculty requires some information confirmed from the secondary school, the applicant must print a relevant form by means of the system and bring this confirmed form to the admission examinations. After checking and sending the form, the key assigned by the system to the application form will be displayed to the applicant together with the number of account in favour of which the applicant should pay the handling fee for admissions. By means of the key, the applicant can access his/her application form, get the date and result of his/her examination or submit further applications for other study programmes as the case may be (without necessity to fill already submitted data). The application becomes valid after the payment of the handling fee is confirmed. The study department will print valid application forms and the applicants will receive them for checking at the admission examination where they will certify under their hands the data specified on the application form.

Currently, the application forms can be sent both in electronic and in a classic paper form. Both ways can be combined. The applicants, who sent the paper application forms only, will receive their keys together with invitation cards by post.

The application forms for applicants from the Czech Republic and Slovak Republic must be distinguished from applicants from other countries. For Czech citizens, some items on the application form are required (unlike aliens). The university must provide this information to the Institute of Information for Education (Ústav informací pro vzdělání - UIV). In the application form, these items stem from catalogues valid in CR and SR. Hence a special application form will be realized for aliens.

After the applicant has successfully passed the admissions, it is necessary to insert him/her into the database as a student of the university (the status will be student). This data transfer from applicant's part of the database to the student's one will be provided by the system. Important data that should match values from catalogues in the application form have already been verified therefore no consistency problem should occur here.

In terms of realization, there is ensured not only development of the electronic application form by means of Oracle9iAS Portal, but also development of the database structure and data administration.

3 CONCLUSION

This work deals with analysis of processes, data structure and applicable technologies for creation of a new subsystem supporting admissions and related administration activities. It summarizes information related to the admissions at the BUT both from applicant's and BUT officials point of view. It also takes into account the view of the Computer and Information Service Center (CVIS). On the basis of this analysis, we have proposed the solution of the subsystem for admissions, which enables using both classic paper application forms and electronic forms.

For realization of the electronic application form, we have chosen the Oracle 9iAS Portal technology, which is the most appropriate out of all possible available technologies used by CVIS. All possibilities of the electronic application form agenda were designed to comply with all BUT faculties. Full implementation of this electronic application form on all BUT faculties is assumed in the 2003/2004 academic year.

REFERENCES

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