

ONLINE COURSE REGISTRATION APPLICATION AT EDEN EVERYDAY ENGLISH BOGOR

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Abstract

The course is one of the education provided outside formal (non-formal) schools to develop personal abilities and skills. Eden Everyday English Course Institute is an Institution located in Bogor. In this institution, the registration process for students is done manually by filling in the registration form provided by the admin. Eden Everyday English Course Institute is one of the courses where the number of applicants increases every year, this causes the administration department cannot manage the registration properly and feels overwhelmed so that it is not effective. With the increase in the number of students registering each year, it would be better if a web-based system was created, so that it could simultaneously serve as a medium for promoting the course institution. This research purpose is to build a web-based application to help the registration process for new students in Eden Everyday English Course Institute using the waterfall method. Many studies, especially in the field of information system development, use the Waterfall method. This application improves the quality of information and the efficiency of the use of online course registration.

Keyword: *Online, Course, Registration, Web, Application*

Abstrak

Kursus merupakan salah satu pendidikan yang diberikan di luar sekolah formal (non formal) untuk mengembangkan kemampuan dan keterampilan pribadi. Eden Everyday English Course Institute adalah sebuah Institusi yang berlokasi di Bogor. Di institusi ini, proses pendaftaran mahasiswa dilakukan secara manual dengan mengisi formulir pendaftaran yang disediakan oleh admin. Eden Everyday English Course Institute merupakan salah satu lembaga kursus yang jumlah pendaftarannya semakin meningkat setiap tahunnya, hal ini menyebabkan bagian administrasi tidak dapat mengelola pendaftaran dengan baik dan merasa kewalahan sehingga tidak efektif. Dengan bertambahnya jumlah mahasiswa yang mendaftar tiap tahunnya, akan lebih baik jika dibuat sistem registrasi berbasis web, sehingga sekaligus bisa menjadi media promosi lembaga kursus. Tujuan penelitian ini adalah membuat aplikasi yang berbasis web untuk membantu proses pendaftaran mahasiswa baru di Eden Everyday English Course Institute dengan menggunakan metode waterfall. Banyak penelitian, khususnya di bidang pengembangan sistem informasi, menggunakan metode Waterfall. Aplikasi ini meningkatkan kualitas informasi dan efisiensi pelaksanaan pendaftaran kursus online.

Kata Kunci: *Online, Kursus, Pendaftaran, Web, Aplikasi*

1. Introduction

English has become a mandatory language for anyone who wants to be successful globally. The increasing flow of people and cross-border communication places English as the social language on the world stage. It is as if an agreement has been reached, that every interaction in the international world will use English [1].

English is the language used to communicate throughout the world. Today everyone must learn and master English in order to keep up with the rapid development of globalization. This was done because English is indispensable in any aspect [2]. Second

language is usually the official language or language that is socially dominant and necessary in education, work and other basic needs [3].

This research took place in Eden Everyday English Course Institute, Bogor. In this institution, the admission process for students is done manually by filling in the registration form provided by the admin. Eden Everyday English Course Institute is one of the courses where the number of applicants increases every year, this causes the administration department cannot manage everything properly and feels overwhelmed so that it is not effective. With the increase in the number of students registering each year, it would be better if a web-based registration

system was created, so that it could simultaneously serve as a medium for promoting the course institution.

The software development method used in this research is Waterfall method. Many studies, especially in the field of information system development, use the Waterfall method, such as a research conducted by Tri Hartati, namely the design of an electronic information system for new student registration at language and professional education institute (LBPP) LIA Pramuka, Jakarta [4], online student admission application at SMK Al-Basyariah Bojong Gede [5], and online application for student admission in SMK Negeri 3 Yogyakarta [6].

This research has a purpose that is to create a web-based application to help the registration process for new students in Eden Everyday English Course Institute using the waterfall method.

2. Method

Based on Ian Sommerville [7], Waterfall model have five principal stages, namely as follows:

1. Requirements definition
2. System and software design
3. Implementation and unit testing
4. Integration and system testing
5. Operation and maintenance.

This research only conducts 3 phase of Waterfall model, namely:

- 1) Requirements definition
 Observations have been conducted in Eden Everyday English to analyze the needs in the course registration system. This is conducted so that when a computerized system is created, all system requirements are met.
- 2) System and software design
 The author designed an online course registration system with the relationship between the entities in the system described in the Entity Relationship Diagram and Logical Record Structure. As for making object-oriented system design using UML (Unified Modeling Language).
- 3) Implementation and unit testing
 At this stage, online course registration application is made using the PHP programming language. In addition, unit testing is also conducted through Black Box Testing.

3. Results and Discussion

A. Functional Requirements

In this online registration course application there are users who have access to the web, namely: Administrator and Student. Both users have different requirements, such as:

1. Administrator Requirements:
 - a. Manage course package data
 - b. Manage schedule
 - c. Manage Student data

2. Student Requirements:
 - a. Register
 - b. Payment Confirmation

B. Database Design

The relationship between some entity is described in Entity Relationship Diagram. Figure 1 illustrated the diagram.

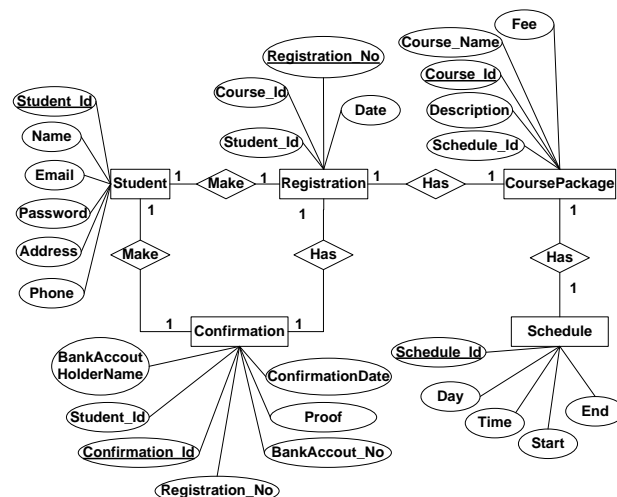


Figure 1. Entity Relationship Diagram

Figure 2 depicts logical record structure of the database design.

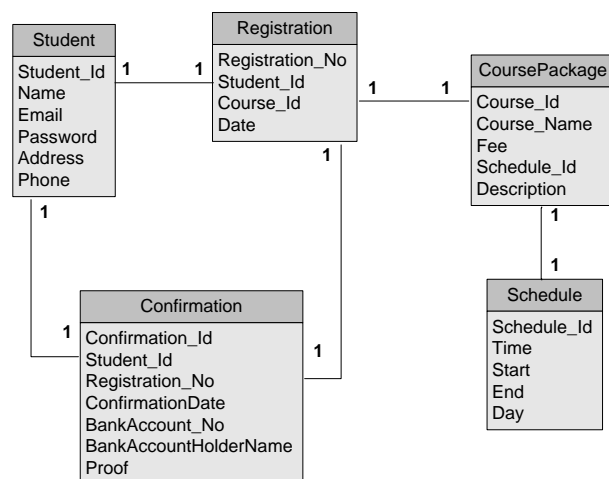


Figure 2. Logical Record Structure

C. Use Case Diagram

The design of use case diagram of the proposed system has been depicted in Figure 3.

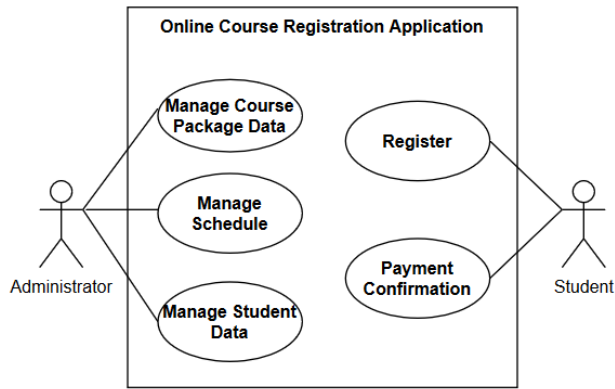


Figure 3. Use Case Diagram

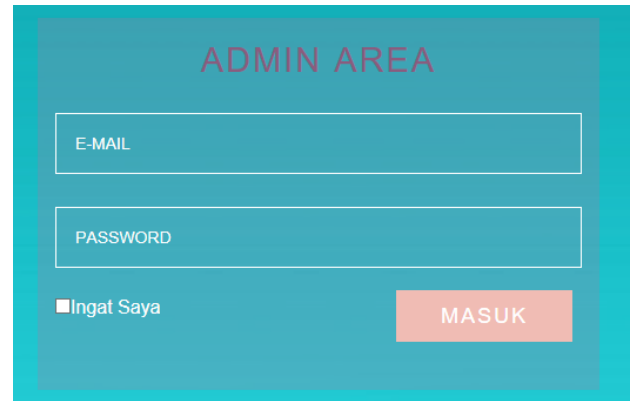


Figure 5. Administrator Log In Page

D. Activity Diagram

This diagram is made based on each use case. Based on “Manage Schedule” use case, activity diagram is depicted in Figure 4.

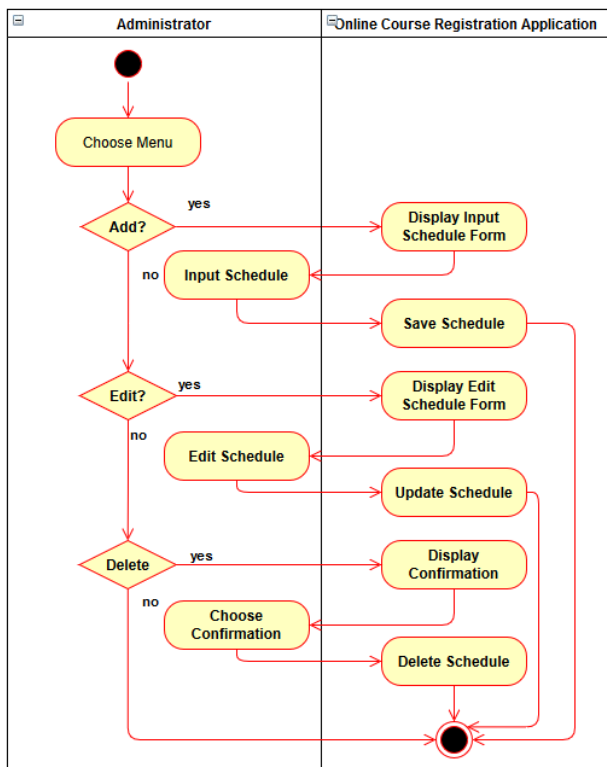


Figure 4. Activity Diagram

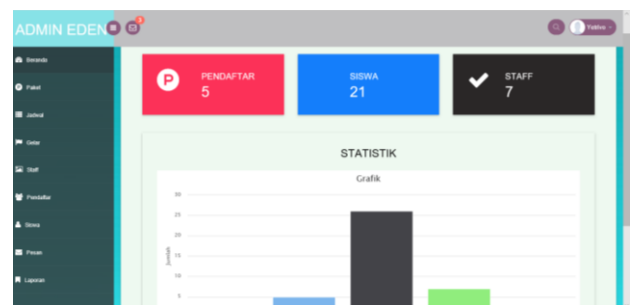


Figure 6. Administrator Home Page

Kode Siswa	Kode Paket	Nama Paket	Nama Lengkap	E-Mail	Alamat	No Handphone	Aksi
UE-190006	PKT-0005	Konversasi	agung	agung@gmail.com	bondres	08955443322	Hapus Edit
UE-190008	PKT-0004	TOEFLIELTS	budi	budi@gmail.com	pancasari	87678567	Hapus Edit
UE-190009	PKT-0002	Remaja	dewi	dewi@gmail.com	batu tulis	089743221	Hapus Edit
UE-190016	PKT-0004	TOEFLIELTS	dewi p	dewi@gmail.com	j.pancasari	8955443322	Hapus Edit
UE-190025	PKT-0001	TK - SD Kelas 6	dwi	dwi@gmail.com	lobak sari	8955443322	Hapus Edit
UE-190001	PKT-0004	TOEFLIELTS	Hamasan Vicky	vickyhamawan5@gmail.com	comas	0867421122	Hapus Edit
UE-190003	PKT-0005	Konversasi	Ilan z	ilan@gmail.com	j.kebon pedes	8955443322	Hapus Edit
UE-190004	PKT-0004	TOEFLIELTS	khanza azka	azka@gmail.com	j.paledang	88722345	Hapus Edit
UE-1900024	PKT-0001	TK - SD Kelas 6	linda aurdina putri	linda@gmail.com	j.lobak sari	0867464843	Hapus Edit
UE-1900012	PKT-0003	Inggris Dewasa	nienda	nienda@yahoo.com	j.meerika	87678567	Hapus Edit
UE-1900013	PKT-0002	Remaja	rahma	rahma@gmail.com	batu tulis	089722345	Hapus Edit
UE-1900026	PKT-0004	TOEFLIELTS	rama	khanza@gmail.com	j.paledang	88722345	Hapus Edit
UE-190007	PKT-0002	Remaja	rvo	rvo@gmail.com	j.paledang	887421122	Hapus Edit
UE-1900004	PKT-0004	TOEFLIELTS	shela	vickyhamawan5@gmail.com	jalan jalan		Hapus Edit
UE-1900010	PKT-0003	Inggris Dewasa	shella	vickytrisehah@gmail.com	jalan jalan		Hapus Edit

Figure 7. Student Data Page

Kode Paket	Kode Paket	Nama Paket	Lama Pembelajaran	Biaya	Aksi
PKT-0005	JD-0005	Konversasi Remaja	1 Bulan 2x Seminggu	630000	Hapus Edit
PKT-0005	JD-0005	Konversasi	1 Bulan 2x Seminggu	700000	Hapus Edit
PKT-0004	JD-0004	TOEFLIELTS	1 Bulan 2x Seminggu	720000	Hapus Edit
PKT-0003	JD-0003	Inggris Dewasa	1 Bulan 2x Seminggu	700000	Hapus Edit
PKT-0002	JD-0002	Remaja	1 Bulan 2x Seminggu	380000	Hapus Edit
PKT-0001	JD-0001	TK - SD Kelas 6	1 Bulan 2x Seminggu	380000	Hapus Edit

Figure 8. Course Package Data Page

E. Implementation

The web of proposed system can be seen in these Figures below. Administrator log in page can be seen in Figure 5.

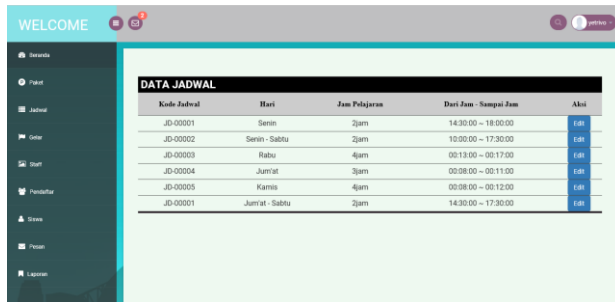


Figure 9. Schedule Page



Figure 13. Course Package Page

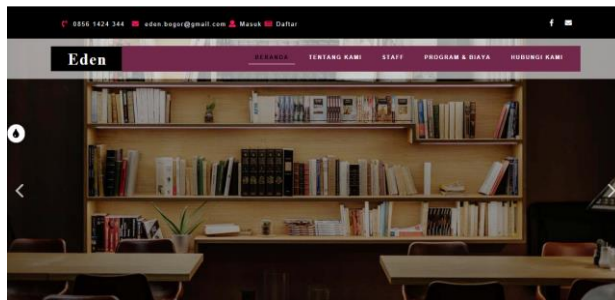


Figure 10. Home Page

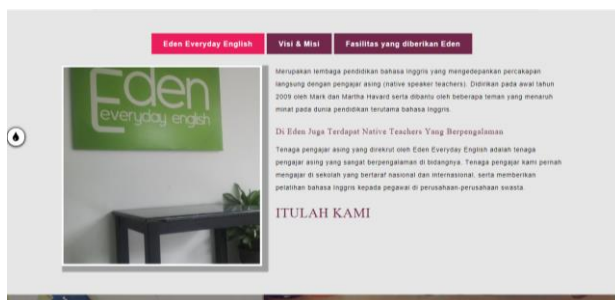


Figure 11. About Us Page



Figure 12. Our Staff



Figure 14. Contact Us Page

F. Black-box Testing

Table 1 depicted the process of black-box testing on administrator's log in page.

Table 1. Black-Box Testing on Administrator's Log In Page

No	Testing scenario	Test Case	Expected result	Result	Conclusion
1.	Email and password are not filled then click the login button	Email (empt y) Pass word (empt y)	The system will deny user access and display "Please fill out this field"	Compatible to expectations	Valid
2.	Email is filled in and the password is not filled in or blank then click the login button	Email (ara @gm ail.co m) Pass word (empt y)	The system will deny user access and display "Please fill out this field"	Compatible to expectations	Valid
3.	Email on textfield is not blank and password is filled in, and then click the login button	Email (empt y) Pass word (1234 5)	The system will deny user access and display "Login Failed"	Compatible to expectations	Valid

4.	Fill in one of the wrong conditions in the email or password then click the login button	<i>Email</i> (aramail.com) <i>Password</i> (0000)	The system will deny user access and display "Login Failed"	Compatible to expectations	Valid
5.	Fill in the email textfield and password textfield with the correct data, and then click the login button	<i>Email</i> (aramail.com) <i>Password</i> (12345)	The web system accepts login access and displays "successful login" then immediately displays user info	Compatible to expectations	Valid

Table 2. Black Box Testing on Registration Form

No	Testing scenario	Test Case	Expected result	Result	Conclusion
1.	All fields are empty then click the register button	<i>Name</i> : (empty) <i>Email</i> : (empty) <i>Password</i> : (empty) <i>Address</i> : (empty) <i>Phone</i> : (empty)	The system will display "Please fill out this field"	Compatible to expectations	Valid
2.	All fields are filled, except Name field then click the register button	<i>Name</i> : (empty) <i>Aother fields</i> : (filled)	The system will display "Please fill out this field"	Compatible to expectations	Valid

3.	All fields are filled, except Email field then click the register button	<i>Email</i> : (empty) <i>Aother fields</i> : (filled with valid data)	The system will display "Please fill out this field"	Compatible to expectations	Valid
4.	All fields are filled, except Password field then click the register button	<i>Password</i> : (empty) <i>Aother fields</i> : (filled with valid data)	The system will display "Please fill out this field"	Compatible to expectations	Valid
5.	All fields are filled, except Address field then click the register button	<i>Address</i> : (empty) <i>Aother fields</i> : (filled with valid data)	The system will display "Please fill out this field"	Compatible to expectations	Valid
6.	All fields are filled, except Phone field then click the register button	<i>Phone</i> : (empty) <i>Aother fields</i> : (filled with valid data)	The system will display "Please fill out this field"	Compatible to expectations	Valid

4. Conclusion

Based on the discussion that the author has discussed previously, the problem of Course Registration at Eden Everyday English Bogor takes a long time and is less effective. With this proposed system design, it is

expected to minimize existing deficiencies. So from the system design made the author can conclude as follows:

1. With this online course registration application, it is hoped that Eden Everyday English will make it easier to produce new registrant data reports.
2. This application can make it easier for users to get information, especially prospective new registrants who will register so that it is more effective without having to queue for a long time.
3. This application facilitates registration and payment data processing and minimizes errors.

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