

Online Survey Engine

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Abstract

Online Survey System/Engine Project is a web-based application developed in Java programming language to facilitate online survey. The main aim of the project is to form a platform to collect the viewpoints of related people about certain issue using the internet. Along with launching survey, it is capable of giving e-mail notifications. It can be implemented in any organizations or college for carrying out survey of any kind. It is the most complete survey software package available for all types of questionnaires and research projects from web, or paper questionnaires. This survey software package is ideal for mixed-mode surveys, which combine two or more of those methods.

The proposed online project is an implementation of Java programming language for software generation that is important in college or organization to carry survey. In this system of survey, only the users authenticated by admin from the database system can drop their vote or express their viewpoint regarding the issue. Being online software, it can be logged on from anywhere with internet access.

Keyword: Online Voting, HTML, JavaScript, MYSQL, XAMP, PHP, Hibernate

Existing System:

In order to take any decision in an organization, it is essential to know what actually workers or the members of organization want. It may not possible to listen to everybody separately and sometimes the viewpoints are required to be kept secret. Also, the manual system of survey is tedious and time consuming as well as uneconomical. So, an online survey system is the solution of these existing problems.

Proposed System:

The proposed Online Survey System is easy and comfortable to use. In this software, the answers or viewpoints of the participants are collected using radio button or check box. The system is designed in such a way that it automatically adds the votes to each alternative and after the deadline of survey it displays the result. All the activities in the project are controlled by approvers like HRS. The system plays a vital role in minimizing the budget of survey. The implementation of project avoids the programs such as meetings, conferences etc. to take any decision or research. With the help of this online system, one can easily forward his/her ideas and viewpoints to the officials.

1.1 Features:

1. The key features of online survey system project are:
2. The project has been coded in Java programming language with MySQL server database.
3. It has the facility of hiding the identity of users or voters in the system. So, the system can be utilized in collecting ideas secretly.
4. Besides the survey facility, it provides the e-mail notification feature for organization.
5. Radio button or check box is used to intake the vote.
6. It can be installed anywhere to provide effective survey facility at an affordable cost.

1.2 Scope

This software system will be an Online Survey System (OSS) for individuals, organizations and business owners. Whether you need to understand the factors that shape faculty satisfaction or feedback from students on a new course offering, an online survey can reveal data that will improve programs, processes, and overall achievement. Parents, students, teachers, professors, and administrators can all benefit from the OSS. Benefits of the OSS includes a faster, cheaper, more accurate ways of collecting information from a large audience, quick to analyze results of surveys at any time, easy to use for participants and researchers also. Functionalities offered by the OSS include creation of surveys (which include ability to add, delete and modify surveys). Assign surveys to specific guest users or a group of guest users or public (visitor).

1.3 Glossary

Term	Definition
Super User	Person, who manages the OSS, creates administrators.
Administrator	Person who creates surveys, assign to guest users and access own survey reports.
Guest User	Person who can fill or submit survey results by first logging in
Visitor	Person who can fill or submit survey results without login
Database	Collection of all the information monitored by this system.
Group of Guest User	Guest users that have being grouped
Software Requirements Specification	A document that completely describes all of the functions of a proposed system and the constraints under which it must operate. For example, this document.
Stakeholder	Any person with an interest in the project who is not a developer.
OSS	Online Survey System
Open Survey	Here survey can be filled by any visitor user
Closed Survey	Here survey can be filled by any guest user with log in credentials

1.4. Document overview

The next chapter, the Overall Description section, of this document gives an overview of the functionality of the product. It describes the informal requirements and is used to establish a context for the technical requirements specification in the next chapter. The third chapter, Requirements Specification section, of this document is written primarily for the developers and describes in technical terms the details of the functionality of the product. Both sections of the document describe the same software product in its entirety, but are intended for different audiences and thus use different language.

2.0. Overall description

This section outlines the use cases for each of the active users separately. The main actors include the Super User, Administrator, Guest User and the visitor user.

2.1. Product Prospective

The Online Survey System is an Internet-based application executing on a Web server and connected to an enterprise database. As shown in Figure 1, the Online Survey System is expected to have an Internet base GUI (web page) for different user based on the roles.

2.1.1 Development Methodology

Due to the nature of the project, cyclic development methodology will be used. This methodology provides best results when there is multitude of users dispersed geographically. Other methodologies which require all the system specification to be known before starting implementation would require longer development periods and resources which cannot be afforded in this project.

In the cyclic development methodology multiple iterations are used, where software evolves with each iteration, until all the requirements are implemented. The project starts with a basic set of requirements. The system is designed and implemented for these requirements and shared with and tested by the user community (See Figure 1). In using the first version of the product, users provide additional requirements. The next iteration starts with updated design and product which is shared with the users again. Using this methodology, instead of waiting until the whole product is finished; the end user of the Online Survey System is involved during each iteration and provides feedback to the development. The system evolves with users' continuous contribution resulting in a more useable system.

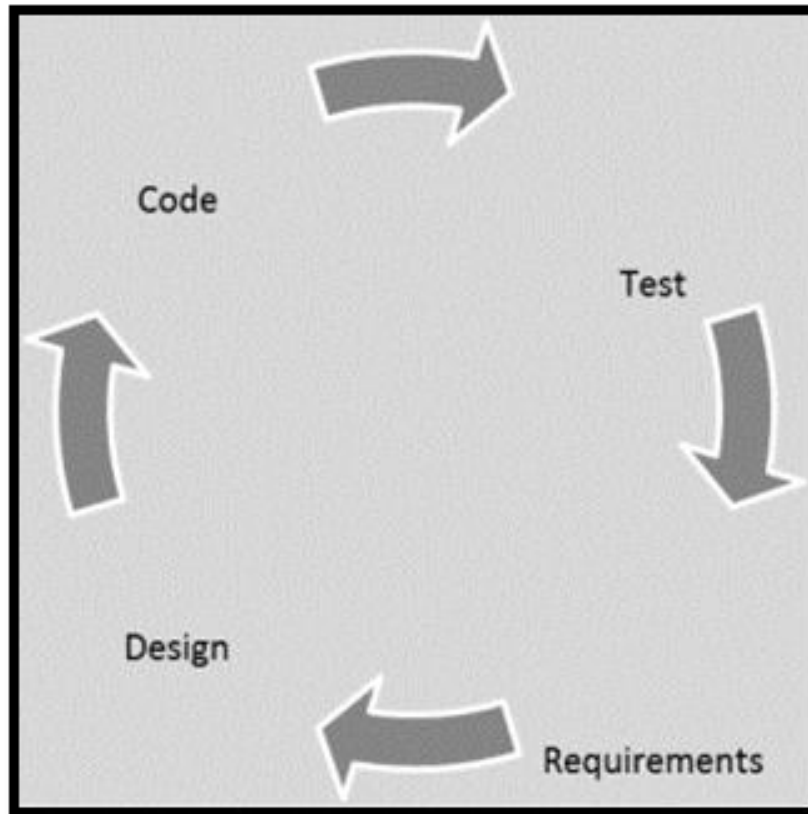


Figure 1 Cyclic Development Methodology

2.2 User Characteristics

There are four different users which can access the system.

2.2.1 Super User:

The Super User can create the administrator users and he can archive the survey.

2.2.2 Administrator User:

The administrator User can create or remove the survey, he can also create the guest user for survey filling.

2.2.3 Guest User:

The guest User can fill the survey; he must login into the system as well.

2.2.4 Visitor User:

The Visitor user can only fill open surveys.

2.3. Constraints

The constraints will be added later.

2.4. Functional requirements definitions

2.4.1 Administrator Use Case

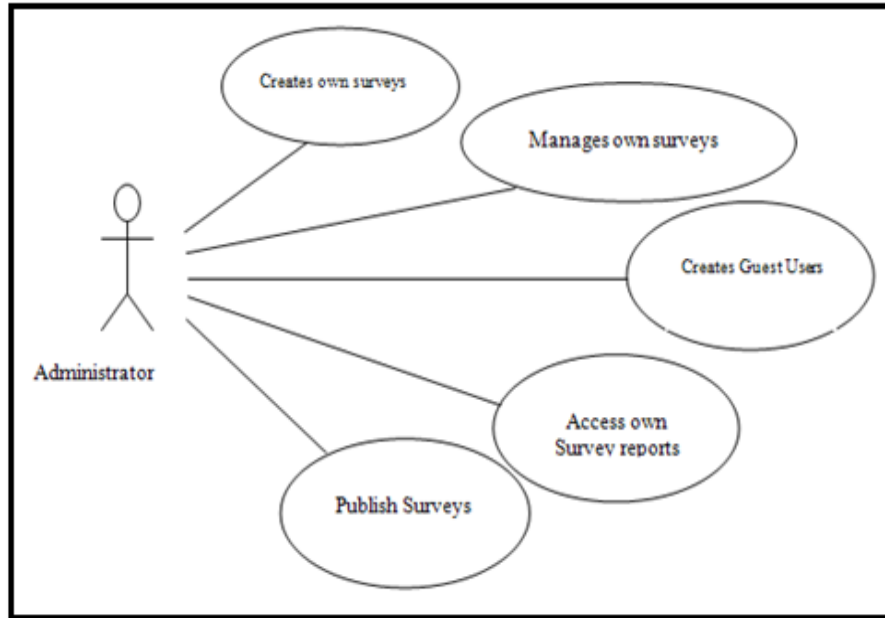


Figure 2: Administrator Use Case

2.4.2 Guest User Use Case

Use Case: Fill online survey by first logging in into system

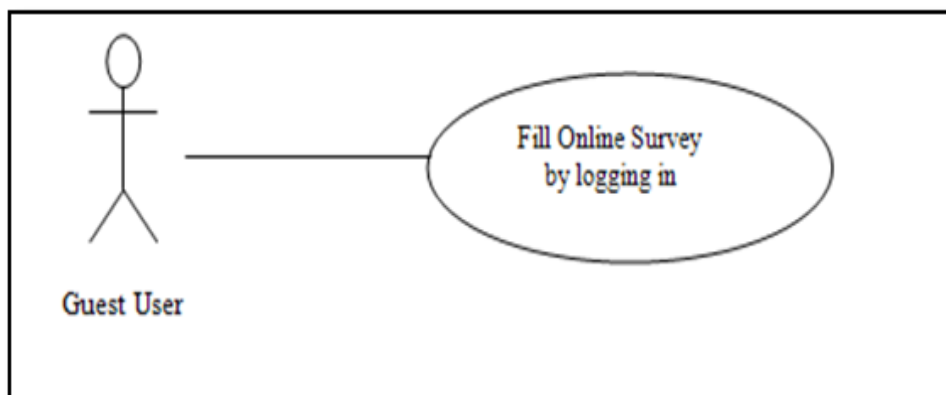


Figure 3: Guest User Use Case

Brief Description

For a closed survey, the guest user is prompted to login with credentials provided by the administrator of the survey.

2.4.2 Visitor User Use Case

Use Case: Fill online survey without login credentials

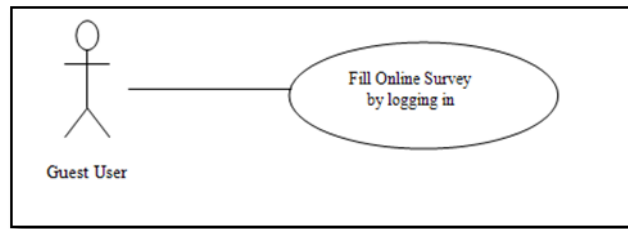


Figure 4: Visitor UC Diagram

2.6. Non-functional requirements

There are requirements that are not functional in nature. Specifically, these are the constraints the system must work within. The web site must be compatible with both the Netscape and Internet Explorer web browsers.

3.0 Requirement specifications

3.1. External interface specifications

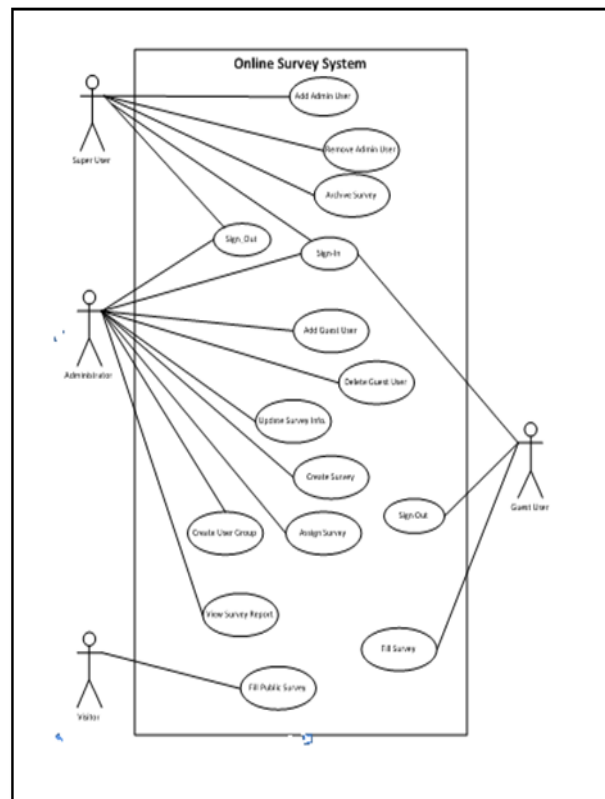


Figure 5: External interface Use Case Diagram

3.2. Functional Requirements

3.2.1. Add administrator User

Use Case Name:	Add administrator User
Actor	Super User
Priority	Essential
Trigger	Main Application page
Precondition	Actor is logged in the system
Basic Path	<ol style="list-style-type: none"> 1. The Actor open the create admin user page. 2. The Actor enters the administrator's information. 3. The administrator information is saved and the system sends acknowledgment to the Actor.
Alternate Path	N/A
Post condition	Admin user is created.
Exception Path	If there is a connection failure, the Online Survey System will display an exception.

3.2.2. Remove administrator User

Use Case Name:	Remove administrator User
Actor	Super User
Priority	Essential
Trigger	Main Application page
Precondition	Actor is logged in the system and the Admin user recorded in the system.
Basic Path	<ol style="list-style-type: none"> 1. The Actor opens the remove admin user page. 2. The Actor searches the required Admin user from the Admin list. 3. The administrator user is deleted and the system sends acknowledgment to the Actor.
Alternate Path	N/A
Post condition	Admin user is removed.
Exception Path	If there is a connection failure, the Online Survey System will display an exception.

3.2.3. Archive Survey

Use Case Name:	Archive Survey
Actor	Super User
Priority	Essential
Trigger	Manage Survey Page
Precondition	Actor is logged in the system and the survey must be expired.
Basic Path	<ol style="list-style-type: none"> 1. The Actor open the Manage Survey page 2. The Actor searches the required survey from the expired survey list. 3. The Actor moves the selected survey into archives data table.
Alternate Path	N/A
Post condition	The expired survey is archived.
Exception Path	If there is a connection failure, the Online Survey System will display an exception.

3.2.4. Create Guest User

Use Case Name:	Create Guest User
Actor	Admin User
Priority	Essential
Trigger	Main Application page
Precondition	Actor is logged in the system.
Basic Path	<ol style="list-style-type: none"> 1. The Actor open the create guest user page. 2. The Actor enters the guest user's information. 3. The guest user's information is saved and the system sends acknowledgment to the Actor.
Alternate Path	N/A
Post-condition	Guest user is created.
Exception Path	If there is a connection failure, the Online Survey System will display an exception.

3.2.5. Remove Guest User

Use5Case Name:	Remove Guest User
Actor	Admin User
Priority	Essential
Trigger	Main Application page
Precondition	Actor is logged in the system
Basic Path	<ol style="list-style-type: none"> 1. The Actor opens the remove guest user page. 2. The Actor searches the required guest user from the guest user's list. 3. The required guest user is removed and the system sends acknowledgment to the Actor.
Alternate Path	N/A
Post condition	Guest user is removed.
Exception Path	If there is a connection failure, the Online Survey System will display an exception.

3.2.6. View Survey Report

Use Case Name:	View Survey Report
Actor	Admin User
Priority	Essential
Trigger	Survey Reports Page
Precondition	Actor is logged in the system and the survey is completed
Basic Path	<ol style="list-style-type: none"> 1. The Actor opens the survey report page. 2. The Actor selects a survey report from the survey report list. 3. The survey report will be displayed in the report page.
Alternate Path	N/A
Post condition	The survey report is displayed.
Exception Path	If there is a connection failure, the Online Survey System will display an exception.

3.2.7. Update Survey information

Use Case Name:	Update Survey information
Actor	Admin User
Priority	Essential
Trigger	Survey Management Page
Precondition	Actor is logged in the system and the survey has been created
Basic Path	<ol style="list-style-type: none"> 1. The Actor opens the survey management page. 2. The Actor selects the survey from the active survey list. 3. The Actor changes and saves the survey information. 4. The updated information will be saved in the system and the sends acknowledgment to the Actor.
Alternate Path	N/A
Post condition	The survey information is updated.
Exception Path	If there is a connection failure, the Online Survey System will display an exception.

3.2.8. Create Survey information

Use Case Name:	Create Survey information
Actor	Admin User
Priority	Essential
Trigger	Survey Management Page
Precondition	Actor is logged in the system
Basic Path	<ol style="list-style-type: none"> 1. The Actor opens the survey management page. 2. The Actor enters the new survey information. 3. The Actor saves the new survey information into the system and the system sends acknowledgment to the Actor.
Alternate Path	N/A
Post condition	The survey has been created
Exception Path	If there is a connection failure, the Online Survey System will display an exception.

3.2.9. Create User Group

Use Case Name:	Create User Group
Actor	Admin User
Priority	Essential
Trigger	User Group Management Page
Precondition	Actor is logged in the system.
Basic Path	<ol style="list-style-type: none"> 1. The Actor opens the user group management page. 2. The Actor fills the user group information. 3. The Actor saves the user group information into the system. 4. The system sends acknowledgment to the Actor.
Alternate Path	N/A
Post condition	The user group has been created.
Exception Path	If there is a connection failure, the Online Survey System will display an exception.

3.2.10. Assign Survey to User Group

Use Case Name:	Assign Survey to User Group
Actor	Admin User
Priority	Essential
Trigger	User Group Management Page
Precondition	Actor is logged in the system. The Survey and the user group should exist in the system.
Basic Path	<ol style="list-style-type: none"> 1. The Actor opens the user group management page. The Actor selects the required survey from the survey list and the user group to which he want to assign the survey. The Actor assigns the survey to the user group. 2. The system sends acknowledgment about the survey assignment to the Actor.
Alternate Path	N/A
Post condition	The Survey is assigned to the user group.
Exception Path	If there is a connection failure, the Online Survey System will display an exception.

3.2.11. Fill Survey

Use Case Name:	Fill Survey
Actor	Guest User
Priority	Essential
Trigger	Fill Survey Page
Precondition	Actor is logged in the system and the survey has been assigned to the Actor.
Basic Path	<ol style="list-style-type: none"> 1. The Actor opens the assigned survey page 2. The Actor selects the survey to be filled. 3. The Actor fills the survey by responding the survey questions. 4. The Actor saves his filled survey into the system. 5. The system sends acknowledgment to the Actor.
Alternate Path	N/A
Post condition	The Survey has been filled.
Exception Path	If there is a connection failure, the Online Survey System will display an exception.

3.2.12. Fill Public Survey

Use Case Name:	Fill Public Survey
Actor	Visitor User
Priority	Normal
Trigger	Fill Survey Page
Precondition	The survey is available and opened.
Basic Path	<ol style="list-style-type: none"> 1. The Actor opens the survey page 2. The Actor selects the survey to be filled. The Actor fills the survey by responding the survey questions. The Actor saves his filled survey into the system. 3. The system sends acknowledgment to the Actor.
Alternate Path	N/A
Post condition	The Survey has been filled.
Exception Path	If there is a connection failure, the Online Survey System will display an exception.

3.2.13. Login

Use Case Name:	Login
Actor	Guest User
Priority	Essential
Trigger	Login page
Precondition	Actor exists in the system
Basic Path	<ol style="list-style-type: none"> 1. The Actor opens the login page. The Actor enters the login information into the login page. The Actor sends the login information to the system. 2. The Actor logged in to the system and he can perform his tasks.
Alternate Path	If the login information is not correct then the system displays a message about incorrect login information.
Post condition	The Actor is logged into the system.
Exception Path	If there is a connection failure, the Online Survey System will display an exception.

CONCLUSION

Web-based surveys have had a profound influence on the survey process in a number of ways. The survey taking process has become more democratized because of Web surveys. Since the ability to gather data through Web surveys is quite widely available, ordinary citizens, as well as government organizations, university researchers and big businesses, are now conducting surveys on the Web. Leadership in Web-based survey design is coming from people with a strong technology background not, just the experts in survey methodology.

The visual aspect of surveys is even more important in Web-based surveys than with other surveys. What was visible in a paper survey can be made invisible in a Web and vice versa. Web surveys have reduced the cost of data collection and made data analysis more efficient. Although there are concerns about Web-based surveys and many aspects of conducting surveys on the Web have yet to be studied, a number of researchers have produced a body of literature that is improving the design and effectiveness of the Web-based survey process.

FUTURE ENHANCEMENTS

The purpose of this project is to provide a survey system that can run from one location and allow for multiple users each with multiple surveys. To make this system, a true web based survey tool will require several enhancements on the current version. Currently the system lacks web based administrative functions. This covers several areas such as online survey creation, online password additions and online review of results by the survey owners.

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