

EASYSURVEY

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Project Scope and Description

- EasySurvey aims to organize surveys in a digital platform which is more efficient than classic, time and money consuming survey systems.
- EasySurvey can be easily implemented in a real world company, because it is developed to be a solution in real world.
- It is possible to design or modify a survey form, upload collected data and report survey results via EasySurvey.

Project Scope and Description

- The EasySurvey project has 3 major objects :
 - Customers
 - Surveys
 - Staff
 - Administrators
 - Order Clerks (sales agents)
 - Surveyors
 - CRM Staff
 - Survey Assistants
 - Reporting Staff

Project Innovation and Creativity

- EasySurvey is designed to ease the process of survey collecting and make its usage widespread with mobile end-user applications.
- EasySurvey enables the company to easily control the surveyor.
- EasySurvey has a performance management system that allows company to share out the work according to surveyor's performance.

Social Responsibility and Commercial Viability

- Survey companies (such as CRM related ones) will be attracted by the system.
- A student version of this system can be used in universities, especially in management faculties.

Technologies Used

- The .NET Framework
- ASP.NET
 - Design of web forms
 - Design of mobil forms

Technologies Used

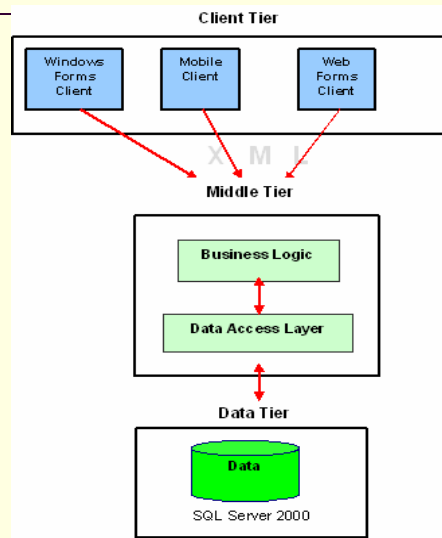
- The C# Language
 - Implementation of web service
 - Implementation of windows service
 - Implementation of class library
- XML Web Services
 - Implementation of web wervice
 - Implementation of mobil forms

EasySurvey Architecture

EasySurvey consists of three main tiers :

- Data Tier – Database
- Middle Tier – Web Services
- Client Tier – User Applications

EasySurvey Architecture



Data Tier

- Microsoft SQL Server used as the database server.
- Project has a database, EasySurvey, that holds all the information about the project.
- Connection between the data tier and middle tier is accomplished by ADO.NET.

Middle Tier

- Data access layer
 - basic operations needed for the system ;
Stored Procedures.
- Business Logic
 - algorithms used to distribute surveys,
calculate performance.
- The connection between middle tier and
client tier is made by the help of XML.

Business Logic

- A class library (EasySurveyClassLib.dll)
written in Visual Studio .NET
- Includes many methods written to implement
the smart agent part of the system
- A service called EasySurvey runs at the
background and in regular time intervals
refreshes the system

EasySurveyClassLib.dll

■ Distribute Class

■ Methods

- AddNewJob (int Surveyid,int Staffid,int Amount)
- DistributeSurvey (int Surveyid)
- GetNeighbours (int Regionid)
- Refresh()
- RemainingTime (int Surveyid)
- StaffAvailableTime (int Surveyid,int Regionid)
- SurveyTime (int Surveyid)
- TotalAvailableTime (int Surveyid, int Regionid)

EasySurveyClassLib.dll

■ Performance Class

■ Methods

- CalculateAverageSpeed (int Staffid)
- UpdateAll()
- UpdateAllSurveyNums()
- UpdateAverageSpeed()
- UpdateAvgQuesTimes()
- UpdatePerformance()
- UpdateQuestionTimes(int Staffid,int Qtype)
- UpdateStaffTimes()
- UpdateSurveyNum (int Surveyid)

Client Tier

- Client Tier consists of web forms, windows forms and forms for the mobile applications.
- User interaction is provided by the client tier

System Objects

- Customer
 - A customer can design a survey.
 - A customer can get real-time statistics about survey processing.
 - A customer can get detailed reports of results of completed surveys.
 - A customer can have an access to raw data for importing to other statistical applications.

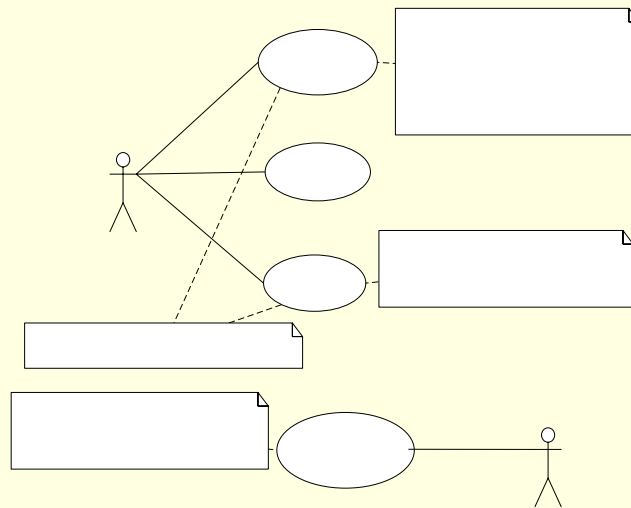
System Objects

- Survey
 - Surveys can be applied by mobile Surveyors.
 - Surveys can be published on the WEB for public audience.

System Objects

- Staff
 - Administrators
 - Order Clerks (sales agents)
 - Surveyors
 - CRM Staff
 - Survey Assistants
 - Reporting Staff

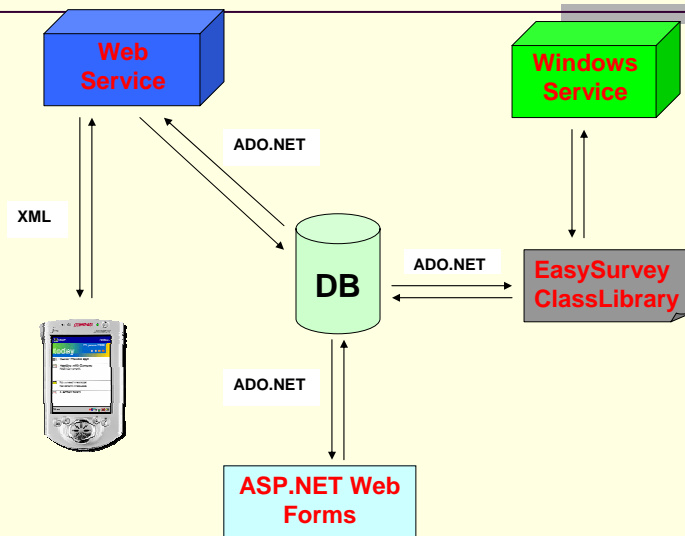
Survey Process



Use Cases : Surve

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How EasySurvey works



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Simple Scenario

- Customer adds a survey to the system.
- Status of the survey is “Design” until the survey form is designed.
- After the survey form design, survey status is set to “Active” , so the survey is ready for distribution.

Simple Scenario

- When the EasySurvey windows service calls its “onTimer” event, all the updates are made first, then a redistribution of all surveys with the newly added ones is performed.
- Surveyors download new jobs after the redistribution is made
- When all jobs for the survey are completed, survey status is set to “complete”.

Comments

- EasySurvey is a complete survey management solution.
- EasySurvey is quite appropriate for improving.
- Only by adding the staff and the regions to the database, a small survey company in a city can be a country-wide company

Recommendations

- A module can be written to extend the system to allow the usage of cellular phones.
- A better reporting mechanism is needed, to provide this functionality, automation of a statistical program can be used (such as SPSS).

QUESTIONS ?