

ABSTRACT

This project is aimed at developing a web-based and central recruitment Process system for the HR Group for a company. Some features of this system will be creating vacancies, storing application data, and Interview process initiation, Scheduling interviews, storing Interview results for the applicant and finally Hiring of the applicant. Reports may be required to be generated for the use of the HR group.

This project '**Online Carrier Guidance and Placement Unit**' is an online website in which jobseekers can register themselves and then attend the exam. Based on the outcome of the exam the jobseekers will be short listed. For fresher, the exam will be conducted at some venue after short listing of the preliminary Aptitude Test. The details of the examination, venue & Date of the examination will be made available to them through the website. The Modules in this project are:

1. Administrator: Administrator has the full authority over the website. He can view all the registered users and have the power to delete them. He can edit the web pages and update them. He can view all the company details also.

2. Jobseeker: A jobseeker can register himself. After registration, he will be directed to his homepage. Here he can update his profile, change password and see the examination details and all.

3. **Company:** A company can register itself, conduct online examination, approve or disapprove candidates attending examination and provides results about the selected candidates.

PROBLEM DESCRIPTION

A System analysis is the detailed study of the various operations performed by the system and their relationships within and outside the system. Analysis is the process of breaking something into its parts so that the whole may be understood. System Analysis is concerned with becoming aware of the problem, identifying the relevant and most decisional variables, analyzing and synthesizing the various factors and determining an optimal or at least a satisfactory solution. During this a problem is identified, alternate system solutions are studied and recommendations are made about committing the resources used to design the system.

SYSTEM STUDY

EXISTING SYSTEM

Presently recruitment is done manually. That is if a company or organization needs employees they make an announcement through newspaper. People who are eligible send application to the organization or company. From these applications they are called for interviews or tests. After tests company has to do short listing manually. From these shortlisted candidates, they are called for interviews. After interview short listed candidates are employed. So it's all a time consuming procedure.

LIMITATIONS OF EXISTING SYSTEM

Recruitment is done manually. These tasks are time consuming. It may take one month or long. People around the world cannot apply. Online CGPU system is very convenient because in the manual system there are lots of difficulties in conducting and managing a recruitment exam, short listing, maintaining staff etc.

PROPOSED SYSTEM

Online CGPU is aimed at developing a web-based and central recruitment process system for the HR Group for a company. Some features of this system will be creating vacancies, storing application data, and Interview process initiation, Scheduling Interviews, Storing Interview results for the applicant and finally hiring of the applicant. This project Online CGPU is an online website in which jobseekers can register themselves and then attend the exam. Based on the outcome of the exam the jobseekers will be shortlisted. The details of the examination & Date of the examination will be

made available to them through the website. People all around the world can apply and register. It has made all the process easy.

ADVANTAGES OF PROPOSED SYSTEM

Online CGPU enables the users to have the typical examination facilities and features at their disposal. It resolves typical issues of manual examination processes and activities into a controlled and closely monitored work flow in the architecture of the application. This multi platform solution brings in by default, the basic intelligence and immense possibilities for further extension of the application as required by the user. The system makes it friendly to distribute, share and manage the examination entities with higher efficiency and easiness. It is a comprehensive resource for finding a job online.

DATA FLOW DIAGRAM

A Data Flow Diagram (DFD) is a diagram that describes the flow of data and the processes that change or transform data throughout a system. It's a structured analysis and design tool that can be used for flowcharting in place of, or in association with, information oriented and process oriented system flowcharts. When analysts prepare the Data Flow Diagram, they specify the user needs at a level of detail that virtually determines the information flow into and out of the system and the required data resources. This network is constructed by using a set of symbols that do not imply a physical implementation. The Data Flow Diagram reviews the current physical system, prepares input and output specification, specifies the implementation plan etc.

Four basic symbols are used to construct data flow diagrams. They are symbols that represent data source, data flows, and data transformations and data storage. The points at which data are transformed are represented by enclosed figures, usually circles, which are called nodes.

SOFTWARE DESCRIPTION

Microsoft Visual Studio 2005

Microsoft Visual Studio is Microsoft's flagship software development product for computer programmers. It centers on an integrated distribution environment which lets

programmers create standalone, websites, web applications, and web services that run on any platforms supported by Microsoft's .Net Framework(for all versions after 6).

Supported platforms include Microsoft windows, servers and workstations, Pocket PC, Smart Phones and World Wide Web browsers not Java Virtual Machine that all other Java tools target.

VISUAL STUDIO 2005

The most important language feature added in this version was the introduction of generics, which are similar in many aspects to C++ templates. This potentially increases the number of bugs caught at compile time instead of run time by encouraging the use of strict type checking in areas where it was not possible before. C++ also got a similar upgrade with the addition of C++/CLI which is slated to replace the use of Managed C++. Other new features of Visual Studio 2005 include the "Development Designer" which allows application designs to be validated before deployments, an improved environment for web publishing when combined with ASP.NET 2.0 and load testing to see application performance under various sorts of user loads.

.NET FRAMEWORK SDK

The .NET framework is an integral windows component that supports building and running the next generation of applications and XML web services. The key component of the .NET framework are the common language runtime and the .NET framework library, which includes ADO.NET, ASP.NET, and windows forms. The .NET framework

provides a managed execution environment simplified development and deployment and integration with a wide variety of programming languages.

This framework is made up of the following parts:

- The common language runtime(CLR)
- The base class libraries.
- Object Oriented internet development with ASP.NET
- Rich client user interface using windows forms
- RAD for the internet using web forms

OVERVIEW OF THE .NET FRAME WORK

The .NET framework is a new computing platform that simplifies application development in the highly distributed environment of the internet. The .NET framework is designed to fulfill following objectives:

- To provide a consistent object oriented programming environment whether object code is stored and executed locally but internet_ distributed, or executed remotely.
- To provide a code execution environment that guarantees safe execution of code, including code created by an unknown or semi trusted third party.
- To provide a code execution environment that eliminates the performance problem of scripted or interpreted environments.

- To make developer experience consistent across widely varying types of application, such as windows based applications and web based application.
- To build all communication on industry standards to ensure that code based on the .NET framework can integrate with any other code.

The .NET framework has two main components: the common language runtime and the .NET framework class library. The common language runtime is the foundation of the .Net framework. You can think of the runtime as an agent that manages code at execution time, remoting while also enforcing strict type safety and other forms of code accuracy that ensure security and robustness. In fact the concept of code management is a fundamental principle of the runtime.

Code that targets the runtime is known as managed code, while code that does not target the runtime is known as unmanaged code. The class library, the other main component of the .NET frameworks is a comprehensive, object oriented collection reusable types that you can use to develop applications ranging from traditional command line or graphical user interface(GUI) applications to application based on the latest innovations provided by ASP.NET, such as web forms and XML web services.

The .NET framework can be hosted by unmanaged component that load the CLR into their processes and initiate the execution of managed code.

ASP.NET works directly with the runtime to enable ASP.NET application and XML web services, both of which are discussed later in this topic.

Internet explorer is an unmanaged application that hosts the runtime (in the form of a MIME type extension) using internet explorer to the host runtime enables you to embed managed components or windows forms controls in HTML documents. Hosting the runtime in this way makes mobile code possible, but with significant improvement that only managed code can offer, such as semi-trusted execution and secure isolated file storage.

The following illustration shows the relationship of the common language runtime and the class library to your application and to the overall system. The illustration also shows how managed code operates with in a larger architecture.

We can use the .NET framework to develop the following types of application and services:

- Console applications
- Windows GUI application(Windows forms)Asp.NET applications
- XML Web services
- Windows services

COMMON LANGUAGE RUNTIME (CLR)

The common language runtime (CLR) is responsible for runtime services such as language integration; security enforcement; and memory process and thread management. In addition, it has a roll at development time when features such as life cycle management strong type naming, cross language exception handling, dynamic binding and so on, reduce the amount of code that a developer must write to turn the business logic the

reusable component. The runtime can be hosted by high performance, server side applications, such as Microsoft Internet Information Services (IIS) for building web applications with ASP.Net and the next release of Microsoft SQL Server .This infrastructure enables you to use code "managed" by the .NET framework to write your business logic, while still enjoying the superior performance of the industry's best enterprises servers that support runtime hosting.

ASP.NET

ASP.Net is a set of Microsoft .NET framework technologies used for building web applications and XML Web services.ASP.NET pages execute on the server and generate mark up such as HTML, WML, or XML that is sent to the desktop or mobile browser.ASP.NET pages use a compiled, event-driven programming model that improve performance and enables the separation of application logic and user interface. Both ASP.NET pages and ASP.NET web services files contain server-side (as opposed to client side logic) written in Visual basic .NET,C# .Net or any .NET compatible language.

Web applications and XML Web Services take advantage of the features of common language runtime, such as type safely, inheritance, language, interoperability, versioning, and integrated security.

IIS

Microsoft Internet Information Services (IIS; formerly called Server) is a set of Internet based services for servers using Microsoft Windows. It is

the world's second most popular web server in terms of overall websites. As of September 2007 it served 34.94% of all websites and 36.63% of all active websites according to Netcraft. The servers currently include FTP, SMTP, NNTP, and HTTP/HTTPS.

ADO.NET

ADO.NET provides consistent access to data sources such as Microsoft SQL Server and XML, as well as to data sources exposed through OLE DB and ODBC. Data-sharing consumer applications can use ADO.NET to connect to these data sources and retrieve, manipulate, and update the data that they contain.

ADO.NET separates data access from data manipulation into discrete components that can be used separately or in tandem. ADO.NET includes .NET framework data providers for connecting to a database, executing commands, and retrieving result. Those results are either processed directly placed in an ADO.NET DataSet object in order to be exposed to a the user in an ad hoc manner, combined with data from multiple sources or remoted between tiers. The ADO.NET DataSet object can also be used independently of a .NET framework data provider to manage data local to the application or sourced from XML.

ADO.NET classes are found in System.Data.dll, and are integrated with the XML classes found in System.Xml.dll. When compiling code that uses the System.Data namespace, reference both System.Data.dll and System.Xml.dll.

ADO.NET provides functionality to developers writing managed code similar to the functionality provided to native component object model(COM) developers by ActiveX Data Objects(ADO).

ADO.NET Components

There are two components of ADO.NET that you can use to access and manipulate data:

- ❖ .NET Framework data Providers
- ❖ The DataSet

.NET Framework Data Providers

The .Net framework Data Providers are components that have been explicitly designed for data manipulation and fast, forward-only, read-only access to data. The Connection object provides connectivity to a data source. The Command object enables access to database commands to return data, modify data, run stored procedures, and send or retrieve parameter information. The DataReader provides a high performance stream of data from the data source. Finally the Data Adapter provides the bridge between the DataSet object and the data source. The Data Adapter object uses the command object to execute SQL Commands at the data source to both load the DataSet with data, and reconcile changes made to the data in the DataSet back to the datasource.

The DataSet

The ADO.NET DataSet is explicitly designed for data access independent of any data source.As a result, it can be used with multiple and differing

data sources, used with XML data, or used to manage data local to the application. The DataSet contains a collection of one or more DataTable objects made up of rows and columns of data, as well as primary key, foreign key, constraint, and relation information about the data in the DataTable objects.

Benefits of ADO.NET

ADO.NET offers several advantages over previous versions of ADO and over other data access components. These benefits fall into the following categories:

1. Interoperability
2. Maintainability
3. Programmability
4. Scalability