

REPORT

On

# **CUSTOMER CARE SUPPORTIVE SYSTEM**

Submitted in partial fulfillment of the requirements for qualifying

.....  
UNDER SUPERVISION OF

SUBMITTED BY:

NAME:

Enrolment No:

**PROJECTHELPLINE.IN**

# CUSTOMER CARE SUPPORTIVE SYSTEM

Under Supervision of :

Submitted By:

Name :

Programme :

Enrolment No. :

Study Center Code :

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## ACKNOWLEDGEMENT

With Candor and Pleasure I take opportunity to express my sincere thanks and obligation to my esteemed guide ..... It is because of his able and mature guidance and co-operation without which it would not have been possible for me to complete my project.

It is my pleasant duty to thank all the staff member of the computer center who never hesitated me from time during the project.

☞

Finally, I gratefully acknowledge the support, encouragement & patience of my family, and as always, nothing in my life would be possible without God, Thank You!

(.....student name)

## DECLARATION

I hereby declare that this project work titled "Customer Care Supportive System" is my original work and no part of it has been submitted for any other degree purpose or published in any other from till date.

(.....)

# CUSTOMER CARE SUPPORTIVE SYSTEM

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## 1. INTRODUCTION

A Customer Care Supportive System is a central place or network of places where customer's queries based tickets/cases are handled by an enterprise. It needs to handle a considerable volume of tickets at the same time; to screen cases/tickets and forward them to someone qualified to handle them, and to log notes in a case/ticket management system.

It is a functional area within an organization or an outsourced separate facility that exists solely to answer queries of the customers in the form of tickets/cases; usually a sophisticated voice operations center that provides a full range of high-volume, inbound or outbound case/ticket/call-handling services also.

Industry term referring a contact centre, also known as customer interaction centre is a central point of any organization from which all customer contacts are managed. Through contact centres, valuable information about company are routed to appropriate people, contacts to be tracked and data to be gathered.

### 1.2 Objectives of the project

The Customer Care industry has skyrocketed to one of the most lucrative and important businesses in the world. Countries like India, Netherlands etc are the forerunners in the business. But leading countries like US and the UK are also fast catching up. With the rising competition, the margin for error has become negligible. Each call center today employs stringent quality measures and constantly looks for improvement. In fact call center improvement services are also extremely popular within the industry

The objective of the Project is to reduce the man force and work load and making economical and real-time problem solving system so that customer can get response immediate and queries can be managed



quickly. Process dictates all the action that a company takes in order to satisfy the customer, reduce costs and gather market intelligence.

Technology can help facilitate these processes through user driven systems development and maintenance. From the content perspective, the focus is on acquiring, engineering and maintaining knowledge and using the technology to distribute the information through various customer care media. The call center computer system is not built to consider human circumstance but merely to process, store and retrieve information. The challenge is to empower agents by providing them not by contact tracking systems but with the sort of information and authority that will make every worthy customer feel as though the company cares about him or her personally.

Project Building  
Blocks:

The project is developed using Relational Database Management System (RDBMS) as SQL-Server and follow multi-tier architecture. A database system is essentially a sophisticated, computerized record keeping system, a repository for a collection of computerized data files. A database system maintains information and makes that information available on demand, for this purpose a database system provides set of facilities to perform such operations.

Modules:

- Y Inbound cases/tickets forms
- Y Response to the cases/queries raised by the customer
- Y Chat/Emails
- Y Customer Support
- Y Data entry of customers' electronic services Sign-up form

Inbound tickets/created by front end support staff

- Basic Information

- Customer Queries
- Lead Generation
- Debit Cards

- Complaints
- Ticket number generation

Customer Support  
Emails

Replies of emails after consulting the related specialty team

Follow-up calls/emails wherever needed

Diverting cases to concern  
departments/divisions

### 1.3. ADVANTAGE:

This project is useful for the authorities which keep track of all the registered users in a particular state. The following steps that give the detailed information of the need of proposed system are:

**Performance:** During past several decades, the records are supposed to be manually handled for all activities. The manual handling of the record is time consuming and highly prone to error. To improve the performance of the Call Center, the computerized system is to be undertaken. The computerized project is fully computerized and user friendly even that anyone can use.

**Efficiency:** The basic need of this website is efficiency. The website should be efficient so that whenever a new user submits his/her details the website is updated automatically. This record will be useful for other users instantly.

**Control:** The complete control of the project is under the hands of authorized person who has the password to access this project and illegal access is not supposed to deal with. All the control is under the administrator and the other members have the rights to just see the records not to change any transaction or entry.

Security: Security is the main criteria for the proposed system. Since illegal access may corrupt the database. So security has to be given in this project.

## DRAWBACKS OF CURRENT MANUAL- SYSTEM

- The current manual system has a lot of paper work and it does not deal with exact record details.
- To maintain the records of sale and service manually, is a Time-consuming job.
- With the increase in database, it will become a massive job to maintain the database.
- Requires large quantities of file cabinets, which are huge and require quite a bit of space in the office, which can be used for storing records of previous records.
- The retrieval of records of employees, customers, trouble tickets will be a tedious job.
- Lack of security for the records, anyone disarrange the records of your system.

PROJECT HELP LINE

## ESTABLISH THE NEED OF NEW SYSTEM

1. Problem of Reliability: Current system is not reliable. It seems to vary in quality from one month to the next. Some times it gives good output, but some times the output is worst.
2. Problem of Accuracy: There are too many mistakes in reports.
3. Problem of timeliness: In the current system the reports and output produced is mostly late and in most of the cases it is useless because it is not on time.
4. Problem of Validity: The output and reports mostly contains misleading information. The customer's information is sometimes not valid.
5. Problem of Economy: The current system is very costly. We have to spend lots of money to keep the system up and going, but still not get the desired results.
6. Problem of Capacity: The current system is suffering from problem of capacity also. The staff for organization is very less and the workload is too much. Few peoples cannot handle all the work.

## PROPOSED SYSTEM

Supportive System. This project is useful for the authorities who keep track of all the Customer Care Supportive System.

The following steps that give the detailed information of the need of proposed system are:

- Performance: During past several decades, the records are supposed to be manually handled for all activities. The manual handling of the record is time consuming and highly prone to error. To improve the performance of the system, the computerized system is to be undertaken. The computerized project is fully computerized and user friendly even that any of the members can see the report and status of their enquiries.
- Efficiency: The basic need of this website is efficiency. The website should be efficient so that whenever a new user submits his/her details the website is updated automatically. This record will be useful for other users instantly.
- Control: The complete control of the project is under the hands of authorized person who has the password to access this project and illegal access is not supposed to deal with. All the control is under the administrator and the other members have the rights to just see the records not to change any transaction or entry.
- Security: Security is the main criteria for the proposed system.

## INTRODUCTION TO .NET

## What is .NET?

- A vision of how information technology will evolve

## 2. A Platform.

- The .NET Framework
- Visual Studio.NET
- .NET Enterprise Servers
  - Database, Messaging, Integration, Commerce, Proxy, Security, Mobility, Orchestration, Content Management
- .NET Building Block Services
  - Passport
  - .NET My Services ("Appin")
- Goal: make it incredibly easy to build powerful Web applications and Web services

## 3. A business model.

- Software as a service
- Subscription-based services
- Application hosting, e.g. bCentral

**Interoperability:** Web languages and protocols must be compatible with one another independent of hardware and software.

**Evolution:** The Web must be able to accommodate future technologies. Encourages simplicity, modularity and extensibility.

**Decentralization:** Facilitates Scalability and Robustness.

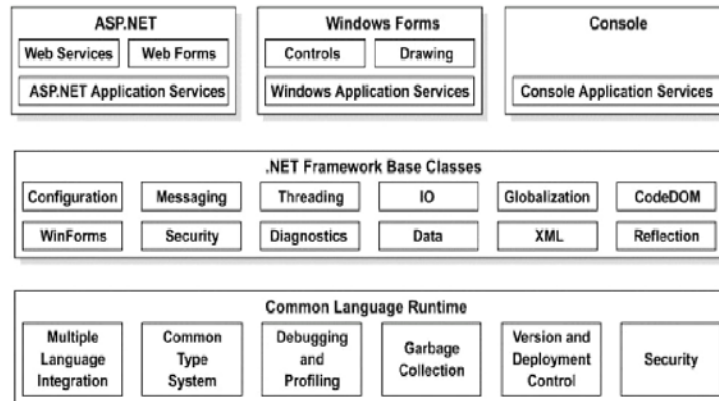
## Web Services

- A programmable application component accessible via standard Web protocols
- The center of the .NET architecture
- Exposes functionality over the Web



- Built on existing and emerging standards are HTTP, XML, SOAP, UDDI, WSDL, ...

## The .NET Framework



## What is the .NET Framework?

- A set of technologies for developing and using components to create:
  - Web Forms
  - Web Services
- The introduction of the Internet and its rapid growth in the recent past has led to the development of a number of new Technologies.
- One of the most important requirements of such applications is the ability to interchange information across platforms and to benefit from the functionality provided by other applications.
- In the current scenario, although applications serve organization-specific requirements, they are not interoperable. Microsoft has introduced the .NET initiative with the intention of bridging the gap in interoperability between applications.
- The .NET initiative offers a complete suite for developing and deploying applications, which consists of the following:
  - NET products: Microsoft has already introduced Visual Studio .NET, which is a tool for developing NET applications by using programming languages such as Visual Basic, C#, and Visual C++.
  - NET services: Microsoft is coming up with its own set of Web services, known as My Services. These services are based on the Microsoft Passport Authentication service, the same service that is used in Hotmail.

## Explanation of the .NET Framework

- Is a collection of services and classes?
- Exists as a layer between .NET applications and the underlying operating system.
- Encapsulates much of the functionality, such as debugging and security services.

- The following figure depicts the components of the .NET Framework:

## The .NET Framework Base Classes or the .NET Class Framework

- Consists of a class library that works with any .NET language, such as Visual Basic .NET and C#.
- Provides classes that can be used in the code to accomplish a range of common programming tasks.
- Comprises
  - Namespaces: Namespaces help you to create logical groups of related classes and interfaces that can be used by any language targeting the .NET Framework.
  - Assembly: An assembly is a single deployable unit that contains all the information about the implementation of classes, structures, and interfaces.
- The Common Language Runtime
  - Provides functionality such as exception handling, security, debugging, and versioning support to any language that targets it.
  - Can host a variety of languages and offer a common set of tools across these languages, ensuring interoperability between the codes.
- Provides the following features:
  - Automatic memory management
  - Standard type system
  - Language interoperability
  - Platform independence
  - Security management
  - Type safety

## Advantages of the .NET Framework

- Some advantages of the .NET Framework are:
  - Consistent programming model
  - Multi-platform applications
  - Multi-language integration
  - Automatic resource management
  - Ease of deployment

## ADO.NET

- Is a model used by Visual Basic .NET applications to communicate with a database for retrieving, accessing, and updating data?
- Uses a structured process flow to interact with a database.

## ADO .NET Data Access

Most applications need data access at one point of time making it a crucial component when working with applications. Data access is making the application interact with a database, where all the data is stored. Different of time ADO.NET conserves system resources and provides maximum security for databases and also has less impact on system performance. Also, ADO.NET when interacting with database uses XML by converting all the data into XML and using it for database related operations making them more efficient.

## Features of ADO.NET

- Disconnected data architecture — Applications connect to the database only while retrieving and updating data.
- Data cached in datasets — ADO.NET is based on a disconnected data structure. Therefore, the data is retrieved and stored in datasets.

- Data transfer in XML format — ADO.NET uses XML for transferring information from a database into a dataset and from the dataset to another component.

- Interaction with the database is done through data commands.

## ADO.NET Object Model

### Key Components of the ADO.NET Model

- Data Provider
  - Is used for connecting to a database, retrieving data, and storing the data.
- Is of two types:
  - OLE DB data provider
  - SQL Server data provider

### Components of a Data Provider

- Connection
  - Used to establish a connection with a data source
  - Some commonly used properties and methods:
    - ConnectionString property
    - Open()method
    - Close()method
    - State property
- Data adapter
  - Creates a dataset and updates the database.
  - Handles data transfer between the database and the dataset through its properties and methods.
  - Displays the data through the process of table mapping.
  - Are of two types:
    - SqlDataAdapter
    - OleDbDataAdapter
- Data command
  - Is a SQL statement or a stored procedure that is used to retrieve, insert, delete, or modify data from a data source.
  - Is an object of the OleDbCommand or SqlCommand class.

- **Data reader**
  - Is used to retrieve data from a data source in a read-only and forward-only mode.
  - Stores a single row at a time in the memory.
  - Commonly used methods:
    - Read()
    - Close()
  
    - NextResult()
- **Dataset**
  - Is a disconnected, cached set of records that are retrieved from a database.
  - Is present as a DataSet class in the System.Data namespace.
  - Has its own object model.



# SYSTEM STUDY

Y , evaluation, and maintenance

A request to take assistance from information system can be made for many reasons, but in each case someone in the organization initiates the request is made, the first system activity the preliminary investigation begins. This activity has three parts:

- 1) Request clarification
- 2) Feasibility study
- 3) Request approval

Request clarification: Many requests from employees and users in the organizations are not clearly defined, therefore it becomes necessary that project request must be examined and clarified properly before considering systems investigation.

## 2.2 SYSTEM DEVELOPMENT LIFE CYCLE

Systems are created to solve problems. One can think of the systems approach as an organized way of dealing with a problem. In this dynamic

world, the subject System Analysis and Design (SAD), mainly deals with the software development activities.

## DEFINING A SYSTEM

A collection of components that work together to realize some objective forms a system. Basically there are three major components in every system, namely input, processing and output.

In a system the different components are connected with each other and they are interdependent. For example, human body represents a complete natural system. We are also bound by many national systems such as political system, economic system, educational system and so forth. The objective of the system demands that some output is produced as a result of processing the suitable inputs.

## SYSTEM LIFE CYCLE

System life cycle is an organizational process of developing and maintaining systems. It helps in establishing a system project plan, because it gives overall list of processes and sub-processes required for developing a system. System development life cycle means combination of various activities. In other words we can say that various activities put together are referred as system development life cycle. In the System Analysis and Design terminology, the system development life cycle means software development life cycle.

Following are the different phases of software development cycle:

- System study
- Feasibility study
- System analysis
- System design
- Coding
- Testing
- Implementation
- Maintenance

The Different Phases Of Software  
Development Life Cycle Are Shown  
Below.





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## IMPORTANCE OF COMPUTERIZED CUSTOMER CARE SUPPORTIVE SYSTEM

There are several attributes in which the computer based information works. Broadly the working of computer system is divided into two main groups:

- ◆ Transaction System
- ◆ Decision Support System

### Transaction System:

A transaction is a record of some well-defined single and usually small occurrence in a system. Transactions are input into the computer to update the database files. It checks the entering data for its accuracy. This means that numeric data appears in numeric field and character data in character field. Once all the checks are made, transaction is used to update the database. Transaction can be inputted in on-line mode or batch mode. In on-line mode, transactions are entered and updated into the database almost instantaneously. In batch mode, transactions are collected into batches, which may be held for a while and inputted later.

### Decision Support System:

It assists the user to make analytical decision. It shows the various data in organized way called analysis. This analysis can be made to study preferences and help in making decisions.

Computer system works out best with record maintenance. It will tell you which customer would get how much pending/reports statements. It will also help to search the information about a particular person by simply entering his telephone number. User can store information as per requirement, which can be used for comparison with other reports.

## PRINCIPLES OF SYSTEM ANALYSIS

### Principles:

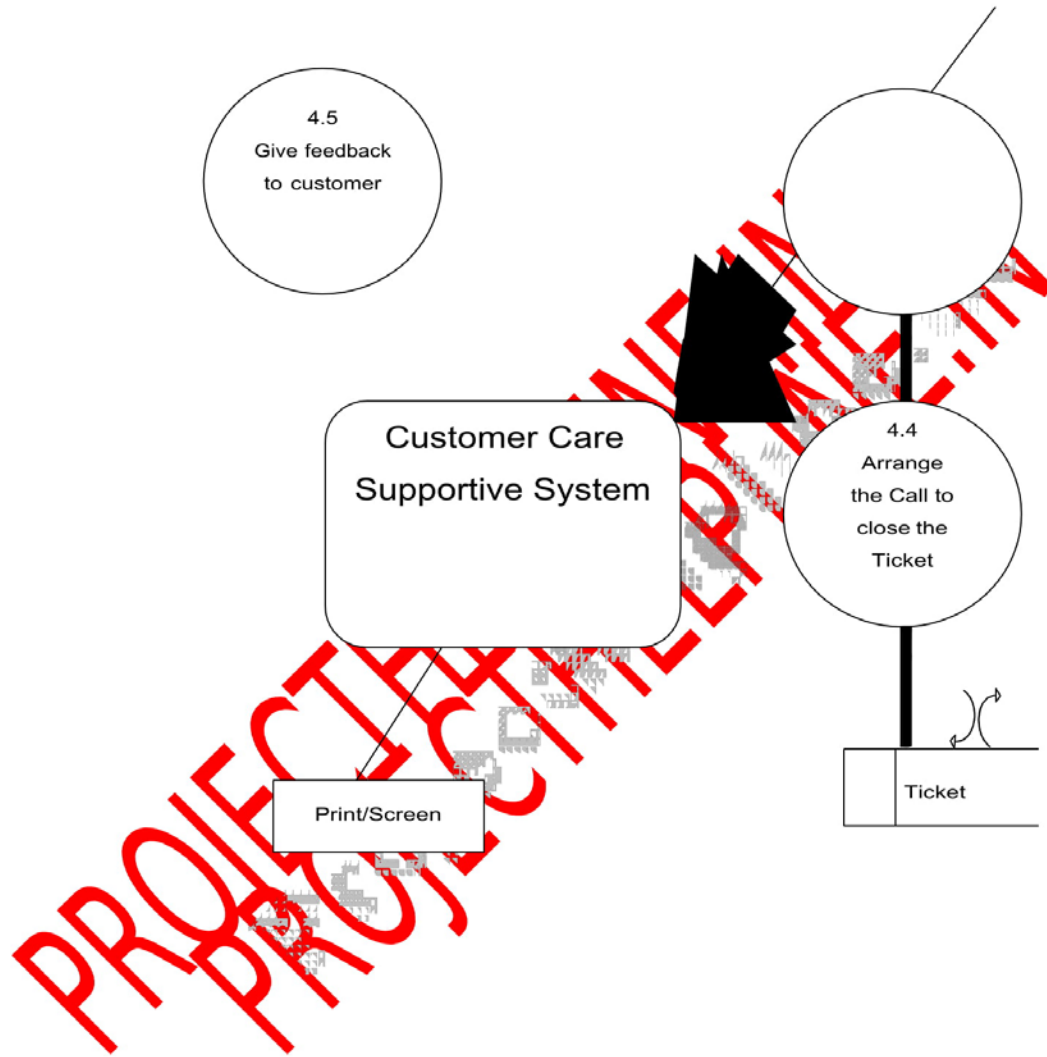
1. Understand the problem before you begin to create the analysis model.
2. Develop prototypes that enable a user to understand how human machine interaction will occur.
3. Record the origin of and the reason for every requirement.
4. Use multiple views of requirements like building data, function and behavioral models.
5. Work to eliminate ambiguity.

### A Complete Structure:

The limited time and resources have restricted us to incorporate, in this project, only the main activities that are performed in news sites, but utmost care has been taken to make the system efficient and user friendly.

For the optimum use of practical time it is necessary that every session is planned. Planning of this project will include the following things:

The design document that we will develop during this phase is the blueprint of the software. It describes how the solution to the customer problem is to be built. Since solution to complex problems isn't usually found in the first try, iterations are most likely required. This is true for software design as well. For this reason, any design strategy, design method, or design language must be flexible and must easily accommodate changes due to iterations in the design. Any technique or design needs to support and guide the partitioning process in such a way that the resulting sub-problems are as independent as possible from each other and can be combined easily for the solution to the overall problem. Sub-problem independence and easy combination of their solutions reduces the complexity of the problem. This is the objective of the partitioning process. Partitioning or decomposition during design involves three types of decisions: -





the Software on a large basis, we must consider the Hardware requirements.

Whenever we develop software or project a certain hardware and software is being used by the programmer for developing the project. The hardware and software to be used by the programmer for developing the project should be such that it would result in the development of a project, which would satisfy all the basic needs for which the project has been created by the programmer. The Hardware should be such that cost constraints of the Client should also be taken into account without affecting the performance.

## 7.2 HARDWARE EVALUATION FACTORS

When we evaluate computer hardware, we should first investigate specific physical and performance characteristics for each hardware component to be acquired. These specific questions must be answered concerning many important factors. These hardware evaluation factors questions are summarized in the below figure.

## 12.CONCLUSION

This project has been a rewarding experience in more than one wa

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