

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)



Skills Based Mini Project Report

on

CUSTOMER PROFILE SYSTEM (CPS)

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Submitted to:

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CERTIFICATE

This is certified that **CHETNA AGRAWAL** (0901CA211020) has submitted the project report titled **Customer Profile System (CPS)** under the mentorship of **Dr. Parul Saxena** (Assistant Professor), as the skills based mini project in 1st Year of Master of Computer Application in Computer Science and Engineering from Madhav Institute of Technology and Science, Gwalior.



Dr. Parul Saxena
(Assistant Professor)
Computer Science and Engineering

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DECLARATION

I hereby declare that the work being presented in this project report, for fulfilment of partial requirement of the skills based mini project in 1st year of Master of Computer Application in Computer Science and Engineering at Madhav Institute of Technology & Science, Gwalior is an authenticated and original record of my work under the mentorship of **Dr. Parul Saxena** (Assistant Professor), MITS Gwalior.

I declare that I have not submitted the matter embodied in this report anywhere else.



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2021 – 2023 YEAR

**Master of Computer Application,
Computer Science and Engineering**

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ABSTRACT

The Customer Profile System (CPS) needs to handle, maintain and store the customer data. To facilitate this objective, the need for an application that takes the customer and the item details from the external source files and store the same in the Data Warehouse (DW) is required. It is an ETL system developed to create the mapping to load the target from the source files after applying criteria as required by the administrator and will also provide the overall features and functionalities required to store and maintain customer data. The data stored in the DW is transformed (cleaned and integrated), thus it is credible and can be used for business insights. This serves as an important component for BI (Business Intelligence) which will help in transforming raw/operational data into some meaningful information. The Fact Inventory which is developed provides us the historical data in a summarized form which can be used for managerial, strategic and analytical decisions by the Analysts team and the end users. It acts as a vast storehouse for the already operated data and can be referred to as an 'Informational System'.

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1 . INTRODUCTION

Customer Profile System (CPS) is a method of successfully managing customer data in a business. IT experts in CPS deal with all of the consumer IDs and data points that exist within a specific business architecture.

Typically, customer Profile System is done throughout an architecture. For example, cross-indexing accounts to provide more easily available client identities or names, or account histories, would be considered CPS. Workers performing CPS may be required to analyse more structured or less structured data, such as collecting stray bits of information from Internet forums or mining customer names and numbers from letters or other print communications.

The ultimate purpose of CPS is to organize all of a company's information about customers in any element of its software architecture, breaking down data silos so that the company has the finest intelligence and gets the most from its data assets.

The majority of businesses have a customer relationship management (CRM) system in place. A CRM solution can manage data on potential customers, sales calls, and proposals at the start of the customer journey. When a prospective buyer converts into a customer, the solution keeps track of information such as contacts, contracts, renewal dates, and customer interactions. When businesses deploy a CRM solution, they frequently overlook a critical issue: how to maintain and organize client records associated with CRM transactions.

2 . OBJECTIVE

Much of the most important client information is difficult to access without document management. CRM software is used to manage structured data such as company names and addresses, order numbers, and customer service concerns and their resolution. Only so much can be learned from client data. Combining it with information from relevant documents such as proposals, contracts, communications, and emails, which provide context for the data, yields real insight.

Customers can contact your firm via a variety of channels and expect to receive the same level of service whether they contact you by email, a web form, a chatbot, or a mobile device. Customers become irritated by delays caused by information being dispersed across many, separate platforms. Consider the last time you called a corporation and were passed around from department to department before your problem was fixed. When their information isn't found right away, they may be concerned about security.

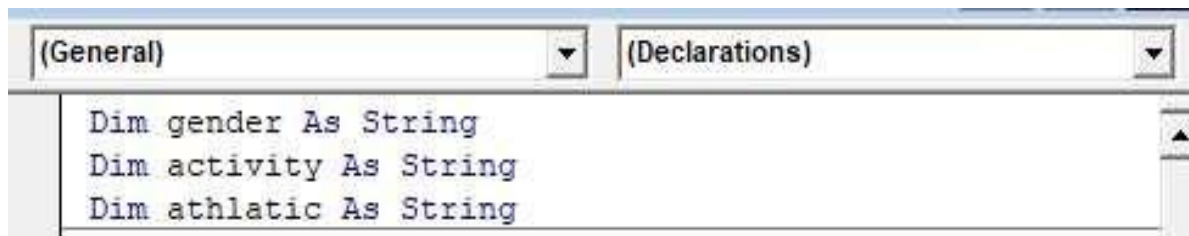
A crucial aspect of the customer experience is the speed with which sales and customer care employees reply to consumer inquiries. The quality of your service degrades when you don't have a complete history of customer data and documents in a central database. Your employees' responses will be slower, and their responses to client questions will likely be incomplete. Follow-up is significantly faster and more efficient with document management because all authorized team members have access to the information they need. Duplicate data entry is also eliminated when your CRM and document management systems are integrated. The data can be entered only once and then shared.

3 . SCOPE

The motivation behind this work is the concept of Data Warehousing, where we collect the data from dissimilar sources and then clear it; organize it to be supported by BI. It allows business users to quickly access critical data from varied sources all in one place. Normally data collected from various sources and stored in various databases cannot be visualized directly. This calls for the need to create a Fact Inventory which is the Data Warehouse for our Customer Profile System (CPS). It contains the summarized data for our customers and items on an aggregate basis. The scope of our ETL process is limited to data load and data access. Data is in the read-only format and is periodically refreshed. It is stored as snapshots, each representing a period of time. This helps to analyse historical data and understand what and when happened. Thus, our focus is not on the ongoing operations, rather it is on the modelling and analysis of data for decision-making.

There is no such issue in the existing system. It is just having a limited scope where tasks regarding managerial decisions, strategic analysis, etc. cannot be done. Also data collected from various sources like flat files, servers, dBs, mainframes, etc. Don't prove to be beneficial for the visualization purpose. This calls for the need of integration where the establishment of a common unit of measure for all similar data from the dissimilar database takes place after which the necessary data load can be done.

4. SAMPLE OF CODING AND OUTPUTS



Declaration Code

```
Private Sub Command1_Click()
Dim I, J As Integer
Dim message As String
message = Text1.Text + " is " + Text2.Text + " years Old" + vbCrLf
message = message + "It's Gender " + gender + " And Live in " + city + vbCrLf
message = message + "It is " + athletic + " Level Athlete." + vbCrLf
For I = 0 To 4
If act(I).Value = vbChecked Then message = message + "ACTIVITY : " + act(I).Caption + vbCrLf
Next I
MsgBox message, vbOKOnly, "CUSTOMER PROFILE"
Frame3.Enabled = True
Frame4.Enabled = True
End Sub
```

Show Profile Button Code

```
Private Sub Command2_Click()
Text1.Text = " "
Text2.Text = " "
city.Text = "----- City -----"
gen(0).Value = False
gen(1).Value = False
act(0).Value = False
act(1).Value = False
act(2).Value = False
act(3).Value = False
act(4).Value = False
ath(0).Value = False
ath(1).Value = False
ath(2).Value = False
ath(3).Value = False
Frame1.Enabled = False
Frame2.Enabled = False
Frame3.Enabled = False
Frame4.Enabled = False
Command1.Enabled = False
End Sub
```

New Profile Button Code

```
Private Sub gen_Click(Index As Integer)
gender = gen(Index).Caption
End Sub
```

Gender Radio Button Code

```
Private Sub act_Click(Index As Integer)
activity = act(Index).Caption
End Sub
```

Activity CheckBox Code

```
Private Sub ath_Click(Index As Integer)
athletic = ath(Index).Caption
End Sub
```

Athletic Radio Button Code

```
Private Sub Text1_Change()
Text1.SetFocus
End Sub

Private Sub Text1_KeyPress(KeyAscii As Integer)
Text2.SetFocus
Frame1.Enabled = True
Frame2.Enabled = True
Frame3.Enabled = True
Frame4.Enabled = True
Command1.Enabled = True
End Sub
```

Focus Text Field and Other Code

```
Private Sub Command3_Click()
End
End Sub
```

Exit Code

Form2

CUSTOMER PROFILE

NAME

Chirag Soni

AGE

22

GENDER

☒ MALE
☐ FEMALE

RESIDENCE CITY

BENGALURU

ACTIVITES

☒ Coding
☒ MultiTasking
☐ Running
☐ Swimming
☒ Cycling

ATHLETIC LEVEL

☐ EXTREME
☒ ADVANCE
☐ INTERMIDATE
☐ BEGINNER

SHOW PROFILE

NEW PROFILE

EXIT

Filled Profile Form

Final Output



5 . CONCLUSION

Customer Profile System (CPS) provides us with the ETL process to construct a Data Warehouse, a central repository for storing the summarized data of customers' sales, which can be utilized by the Data Analysts or the end users for making strategic decisions. The conventional dBs are merely used only for operating on the current data. However, by developing a DW we can store all the historic data and use them in forecasting the future business plans by studying the various patterns in customer behaviour. The CPS Fact Inventory serves this purpose by storing the aggregate values. It holds the foreign keys column that allows joins with dimension tables and the measures columns containing the data that is being analysed. Thus, our purpose of developing an information system in the form of Data is fulfilled.

6 . REFERENCE / BIOBLOGRRAPHY

- Visual Basic 6 Programming Book.
- www.google.com
- **Teacher :** Dr. Parul Saxena, Assistant Professor