JAYPEE INSTITUTE OF INFORMATION TECHNOLOGY NOIDA-128
<u>SOFTWARE DEVELOPMENT LAB</u>

<u>PROJECT ON-</u>

<u>RESTAURANT MANAGMENT SYSTEM</u>

GROUP MEMBER DETAILS: **SUBMITTED TO:**

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Restaurant Management System

Introduction :-

Restaurant is a kind of business that serves people all over the world with ready made food. Many restaurants have a lot of difficulty in managing the business such as customer ordering and reservation of tables. By using manual customer ordering it is difficult for the waiter to keep the correct customer information and the information may get lost . The current system (manual system) is not effective and efficient to use anymore. The current system cannot save, manage and monitor the restaurant methodically enough. We need a better restaurant management system in place. This system is developed to automate day to day activity of a restaurant and provide service facilities to restaurants and also to the customer.

Objectives :-

The main point of developing this system is to help restaurant administrators manage the restaurant business and help customers for ordering and reserving tables digitally. This restaurant management system can be used by employees in a restaurant to handle the clients, their orders and can help them easily find free tables or place orders. Digital restaurant management systems will help the restaurant administrator to manage restaurant management more efficiently and provide various services to the customers that would make their experience more delightful.

Services Provided :-

This restaurant management system provide various services like:-

● **Reservation Service**
Customers can reserve the table that they want as well as access their already reserved table. The system also informs the customer whether the table that they have selected is available for reservation or not.

● **Display of Menu**
The system displays a systematic menu of the items available at the restaurant along with the price of the respective item. The menu is organised into various categories such as salads, desserts, soups, beverages etc.

- **Dine In**
  If a customer does not have an already reserved table, the system allows the customer to select an available table for them to dine in at.

- **Ordering**
  The system allows the client to place their orders easily. The client is allowed to keep ordering and reordering items from the menu as many times they want and stop when they are done and don't want to place any further orders.

- **Bill Generation**
  The system calculates and generates a systematic bill according to the price and quantity of items ordered by the customer. It also allows the user to use their coupons if they have any and get a discount on the amount that they have to pay.
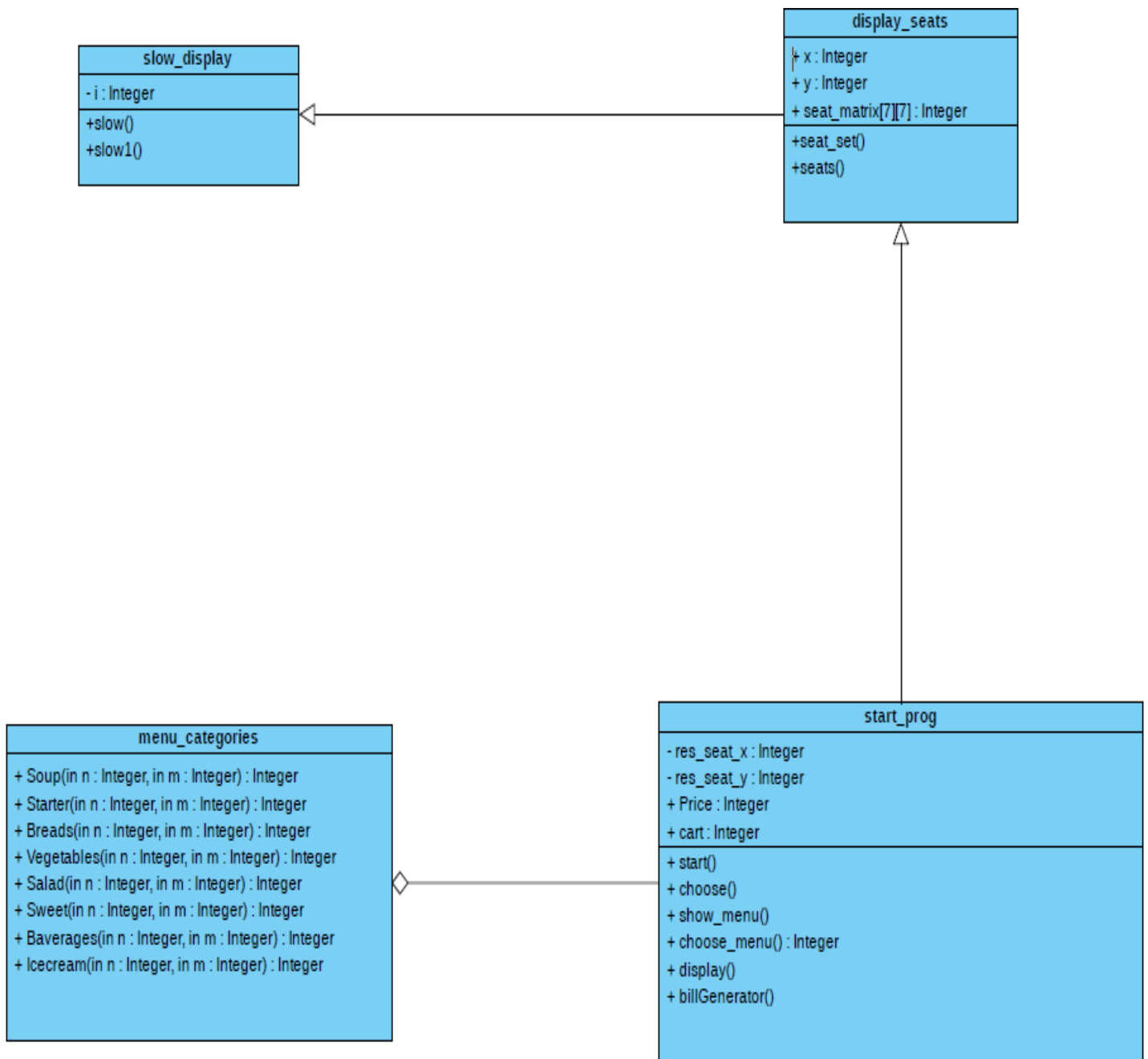
- **Accepts Information from the User**
  The system accepts the customer's important information like name, contact number, address and the mode of payment and prints this information on their bill.

- **About the Restaurant**
  The system allows the user to access certain information about the restaurant like the name of the owner, manager, year of establishment etc.

Class Diagram :-

display_seats

+ x : Integer
+ y : Integer
+ seat_matrix[7][7] : Integer

+seat_set()
+seats()

slow_display

- i : Integer

+slow()
+slow1()

menu_categories

+ Soup(in n : Integer, in m : Integer) : Integer
+ Starter(in n : Integer, in m : Integer) : Integer
+ Breads(in n : Integer, in m : Integer) : Integer
+ Vegetables(in n : Integer, in m : Integer) : Integer
+ Salad(in n : Integer, in m : Integer) : Integer
+ Sweet(in n : Integer, in m : Integer) : Integer
+ Baverages(in n : Integer, in m : Integer) : Integer
+ Icecream(in n : Integer, in m : Integer) : Integer

start_prog

- res_seat_x : Integer
- res_seat_y : Integer
+ Price : Integer
+ cart : Integer

+ start()
+ choose()
+ show_menu()
+ choose_menu() : Integer
+ display()
+ billGenerator()

Lines of code :- 1094

Code :-

```cpp
#include <bits/stdc++.h>
using namespace std;
class slow_display
{
  int i;
  public:
void slow()
{
  for (i = 0; i < 10000000; i++)
  {
    cout << "";
  }
}
void slow1()
{
  for (i = 0; i < 99999900; i++)
  {
    cout << "";
  }
}
};

class display_seats: public slow_display
{
  public:
    int x, y;
  int seat_matrix[7][7];// to display seats in retro!
  void seat_set()
  {
    int i, j;
  for (i = 0; i <= 6; i++)
  {
    for (j = 0; j <= 6; j++)
    {
      if((i>=1 && i<=5) && (j>=1 && j<=5))
      seat_matrix[i][j] = 0;
      else
      seat_matrix[i][j] = 99;
    }
```

```cpp
        }
    }
void seats() //seat matrix
{
    int i, j;
    for (i = 0; i <= 6; i++)
    {
        for (j = 0; j <= 6; j++)
        {
            if ((i == 0 && j == 0) || (i == 6 && j == 0))
            {
                slow();
                cout << "\t =======";
            }
            else if (i == 0 || i == 6)
            {
                slow();
                cout << "=======";
            }
            else if (j == 0)
            {
                slow();
                cout << "\t||  ";
            }
            else if (j == 6)
            {
                slow();
                cout << "\t ||  ";
            }

            else
            {
                slow();
                cout << "\t" << seat_matrix[i][j];
            }
        }
        cout << "\n";
```

```cpp
        }
another_choice:
    cout << "\tEnter row and column::";
    cin >> x >> y;
    if (seat_matrix[x][y] == 0)
        seat_matrix[x][y] = 1;
    else if((x<=0 || x>5 || y<=0 || y>5))
    {
        cout<<"\n\tThe seat number you are requesting does not exist."<<endl;
        goto another_choice;
    }
    else
    {
        cout << "\n\tSorry Sir ,this seat is already booked.\n\tPlease choose some other seat\n ";
        goto another_choice;
    }

    for (int i = 0; i <= 6; i++)
    {
        for (int j = 0; j <= 6; j++)
        {
            if ((i == 0 && j == 0) || (i == 6 && j == 0))
            {
                slow();
                cout << "\t =======";
            }
            else if (i == 0 || i == 6)
            {
                slow();
                cout<<"=======";
            }
            else if ((i == x) && (j == y))
            {
                slow();
                cout << "\t" << seat_matrix[i][j];
            }

            else if (j == 0)
            {
                slow();
```

```cpp
            cout << "\t||  ";
        }
        else if (j == 6)
        {
            slow();
            cout << "\t ||  ";
        }

        else
        {
            cout << "\t" << seat_matrix[i][j];
        }
      }
      cout << "\n";
    }
  }
};
class menu_categories //to display menu
{
    public:
int Soup(int n, int m) //price of different soup
{
    cout << "\t\t ************************************ \n";
    cout << "\t\t|                          |\n";
    cout << "\t\t|                          |\n";
    cout << "\t\t|                          |\n";
    cout << "\t\t|                          |\n";
    cout << "\t\t|     Dish:-        Unit:-    |\n";
    cout << "\t\t|                          |\n";
    cout << "\t\t|                          |\n";
    switch (n)
    {
    case 1:
    {
        cout << "\t\t|     1.Tomato Soup      " << m << "          |\n";

        break;
```

```cpp
	}
	case 2:
	{
		cout << "\t\t|     2.Spinach Soup     " << m << "          |\n";

		break;
	}
	case 3:
	{
		cout << "\t\t|     3.Sweetcorn Soup   " << m << "         |\n";

		break;
	}
	case 4:
	{
		cout << "\t\t|     4.Hot&Sour Soup    " << m << "         |\n";

		break;
	}
	default:
	{
		cout << "\t\t|=====Wrong input! Please try again=====|\n";
	}
	}
	cout << "\t\t|                          |\n";
	cout << "\t\t|                          |\n";
	cout << "\t\t|                          |\n";
	cout << "\t\t|                          |\n";
	cout << "\t\t|                          |\n";
	cout << "\t\t ************************************** \n";
	return 0;
}
int Starter(int n, int m)//price of different starter
{
	cout << "\t\t ************************************** \n";
	cout << "\t\t|                          |\n";
	cout << "\t\t|                          |\n";
	cout << "\t\t|                          |\n";
	cout << "\t\t|                          |\n";
	cout << "\t\t|     Dish:-        Unit:-    |\n";
```

```cpp
cout << "\t\t|                    |\n";
cout << "\t\t|                    |\n";
switch (n)
{
case 1:
{
    cout << "\t\t|    1.Cocktail Samosa  " << m << "        |\n";

    break;
}
case 2:
{
    cout << "\t\t|    2.Veg Patties    " << m << "        |\n";

    break;
}
case 3:
{
    cout << "\t\t|    3.Veg Roll      " << m << "        |\n";

    break;
}
case 4:
{
    cout << "\t\t|    4.Veg Manchurian   " << m << "        |\n";

    break;
}
default:
{
    cout << "\t\t|=====Wrong input! Please try again=====|\n";
}
}
cout << "\t\t|                 |\n";
cout << "\t\t|                 |\n";
cout << "\t\t|                 |\n";
cout << "\t\t|                 |\n";
```

```cpp
    cout << "\t\t|                             |\n";
    cout << "\t\t ************************************ \n";
    return 0;
}
int Breads(int n, int m)//price of different breads
{
    cout << "\t\t ************************************ \n";
    cout << "\t\t|                             |\n";
    cout << "\t\t|                             |\n";
    cout << "\t\t|                             |\n";
    cout << "\t\t|                             |\n";
    cout << "\t\t|      Dish:-          Unit:-    |\n";
    cout << "\t\t|                             |\n";
    cout << "\t\t|                             |\n";
    switch (n)
    {
    case 1:
    {
        cout << "\t\t|     1.Chapati        " << m << "          |\n";

        break;
    }
    case 2:
    {
        cout << "\t\t|     2.Paratha        " << m << "          |\n";

        break;
    }
    case 3:
    {
        cout << "\t\t|     3.Naan           " << m << "          |\n";

        break;
    }
    case 4:
    {
        cout << "\t\t|     4.Kulcha         " << m << "          |\n";

        break;
    }
```

```cpp
			case 5:
			{
				cout << "\t\t|     5.Bhatura         " << m << "         |\n";

				break;
			}
			default:
			{
				cout << "\t\t|=====Wrong input! Please try again=====|\n";
			}
		}
		cout << "\t\t|                       |\n";
		cout << "\t\t|                       |\n";
		cout << "\t\t|                       |\n";
		cout << "\t\t|                       |\n";
		cout << "\t\t|                       |\n";
		cout << "\t\t ************************************** \n";
		return 0;
}
int Vegetables(int n, int m)//price of different vegeatbles
{
		cout << "\t\t ************************************** \n";
		cout << "\t\t|                       |\n";
		cout << "\t\t|                       |\n";
		cout << "\t\t|                       |\n";
		cout << "\t\t|                       |\n";
		cout << "\t\t|     Dish:-        Unit:-    |\n";
		cout << "\t\t|                       |\n";
		cout << "\t\t|                       |\n";
		switch (n)
		{
		case 1:
		{
			cout << "\t\t|     1.Veg Makhani     " << m << "         |\n";

			break;
		}
```

```cpp
    case 2:
    {
        cout << "\t\t|     2.Paneer Kadhaai   " << m << "          |\n";

        break;
    }
    case 3:
    {
        cout << "\t\t|     3.Paneer Mattar    " << m << "          |\n";

        break;
    }
    default:
    {
        cout << "\t\t|=====Wrong input! Please try again=====|\n";
    }
    }
    cout << "\t\t|                          |\n";
    cout << "\t\t|                          |\n";
    cout << "\t\t|                          |\n";
    cout << "\t\t|                          |\n";
    cout << "\t\t|                          |\n";
    cout << "\t\t ************************************* \n";
    return 0;
}
int Salad(int n, int m)//price of different salad
{
    cout << "\t\t ************************************* \n";
    cout << "\t\t|                          |\n";
    cout << "\t\t|                          |\n";
    cout << "\t\t|                          |\n";
    cout << "\t\t|                          |\n";
    cout << "\t\t|     Dish:-         Unit:-    |\n";
    cout << "\t\t|                          |\n";
    cout << "\t\t|                          |\n";
    switch (n)
    {
    case 1:
    {
        cout << "\t\t|     1.Green Salad      " << m << "          |\n";
```

```cpp
            break;
        }
        case 2:
        {
            cout << "\t\t|     2.Alu Chat        " << m << "          |\n";

            break;
        }
        case 3:
        {
            cout << "\t\t|     3.Russian Salad    " << m << "          |\n";

            break;
        }
        default:
        {
            cout << "\t\t|=====Wrong input! Please try again=====|\n";
        }
        }
        cout << "\t\t|                          |\n";
        cout << "\t\t|                          |\n";
        cout << "\t\t|                          |\n";
        cout << "\t\t|                          |\n";
        cout << "\t\t|                          |\n";
        cout << "\t\t *********************************** \n";
        return 0;
}
int Sweet(int n, int m)//price of different sweet
{
        cout << "\t\t *********************************** \n";
        cout << "\t\t|                          |\n";
        cout << "\t\t|                          |\n";
        cout << "\t\t|                          |\n";
        cout << "\t\t|                          |\n";
        cout << "\t\t|     Dish:-        Unit:-   |\n";
        cout << "\t\t|                          |\n";
```

```cpp
cout << "\t\t|                        |\n";
switch (n)
{
case 1:
{
   cout << "\t\t|     1.Gulaab Jaamun      " << m << "      |\n";

   break;
}
case 2:
{
   cout << "\t\t|     2.Rasgulla        " << m << "        |\"<<m<<";

   break;
}
case 3:
{
   cout << "\t\t|     3.Gaajar Halwa     " << m << "        |\n";

   break;
}
case 4:
{
   cout << "\t\t|     4.Shri Kand       " << m << "        |\n";

   break;
}
case 5:
{
   cout << "\t\t|     5.Jalebi          " << m << "        |\n";

   break;
}
default:
{
   cout << "\t\t|=====Wrong input! Please try again=====|\n";
}
}
cout << "\t\t|                       |\n";
cout << "\t\t|                       |\n";
```

```cpp
    cout << "\t\t|                         |\n";
    cout << "\t\t|                         |\n";
    cout << "\t\t|                         |\n";
    cout << "\t\t ************************************ \n";
    return 0;
}
int Baverages(int n, int m)//price of different baverages
{
    cout << "\t\t ************************************ \n";
    cout << "\t\t|                         |\n";
    cout << "\t\t|                         |\n";
    cout << "\t\t|                         |\n";
    cout << "\t\t|                         |\n";
    cout << "\t\t|     Dish:-        Unit:-    |\n";
    cout << "\t\t|                         |\n";
    cout << "\t\t|                         |\n";
    switch (n)
    {
    case 1:
    {
        cout << "\t\t|     1.Cold drink     " << m << "     |" << endl;

        break;
    }
    case 2:
    {
        cout << "\t\t|     2.Cold Coffee     " << m << "     |" << endl;

        break;
    }
    case 3:
    {
        cout << "\t\t|     3.Tea          " << m << "     | " << endl;

        break;
    }
    case 4:
```

```cpp
		{
			cout << "\t\t|      4.Hot Coffee        " << m << "      |  " << endl;
			break;
		}
		default:
		{
			cout << "\t\t|=====Wrong input! Please try again=====|\n";
		}
		}
		cout << "\t\t|                         |\n";
		cout << "\t\t|                         |\n";
		cout << "\t\t|                         |\n";
		cout << "\t\t|                         |\n";
		cout << "\t\t|                         |\n";
		cout << "\t\t ************************************ \n";
		return 0;
}
int Icecream(int n, int m)//price of different ice cream
{
		cout << "\t\t ************************************************* \n";
		cout << "\t\t|                             |\n";
		cout << "\t\t|                             |\n";
		cout << "\t\t|                             |\n";
		cout << "\t\t|                             |\n";
		cout << "\t\t|     Dish:-            Unit:-    |\n";
		cout << "\t\t|                             |\n";
		cout << "\t\t|                             |\n";
		switch (n)
		{
		case 1:
		{
			cout << "\t\t|     1.Vanilla               " << m << "     |";
			break;
		}
		case 2:
		{
			cout << "\t\t|     2.Strawberry             " << m << "     |";

			break;
		}
```

```cpp
                case 3:
                {
                    cout << "\t\t|      3.Chocolate                " << m << "      |";
                        break;
                }
                case 4:
                {
                    cout << "\t\t|      4.Vanilla with chocolate sauce    " << m << "      |";

                        break;
                }
                default:
                {
                    cout << "\t\t|==========Wrong input! Please try again==========|\n";
                }
            }
            cout << "\t\t|                                   |\n";
            cout << "\t\t|                                   |\n";
            cout << "\t\t|                                   |\n";
            cout << "\t\t|                                   |\n";
            cout << "\t\t|                                   |\n";
            cout << "\t\t ********************************************** \n";
            return 0;
}
};


class start_prog : public display_seats //Choosing and reservation of seat
{
    int res_seat_x, res_seat_y;
    public:
int Price;
int cart;
    menu_categories* menu;
void start()
{
    cout << "\t\t\t\t\t\t\t*******************************\n";
```

```cpp
    cout << "\t\t\t\t\t\t\tWelcome to Annapurna Restaurant \n";
    cout << "\t\t\t\t\t\t\t********************************\n\n\n";
    cout << "\t�If more of us valued food and cheer and song above hoarded gold, it would be a
merrier world.�\n\n";
    cout << "\n\n\tWelcome to our Restaurant.\n\n";
    seat_set();
    choose();

}
void choose() //function for reservation of seat
{
    cout << "\tWhat would you like to do:\n\n";
    cout << "\t1:Dine-in\n\t2:Reservation of seat\n\t3:Already Reserved\n\t4:About Us\n";
    int choice_1;
    cout << "\tEnter you choice::";
    cin >> choice_1;
    switch (choice_1)
    {
    case 1:
        cout << "\tFor Dine-in ,Please Choose Your Seat\n";
        seats();
        slow1();
        cout << "\tCongratulations! Your seat has been booked\n";
        slow1();
        slow1();
        slow1();
        slow1();
        show_menu();
        display();
        fflush(stdin);
        break;

    case 2:
        cout << "\tFor Reservation Please Choose Your Seats\n";
        seats();
        cout << "\tCongratulations! Your seat has been booked\n";
        fflush(stdin);
        choose();
        break;
```

```cpp
case 3:
    cout << "\tPlease tell your seat number::";
    cin >> res_seat_x >> res_seat_y;
    cout << "\tThank you Sir ,You Are On time\n";
    if (seat_matrix[res_seat_x][res_seat_y] == 1)
    {
        cout << "\n\tPlease Have Your Seat\n";
        slow1();
        slow1();
        slow1();
        show_menu();
        display();
    }
    else
    {
        cout << "\n\tSorry sir, but there is no seat booked with this number\n";
        cout << "\n\tPlease visit us again\n\n\n";
        start();
    }
    break;

case 4:
    cout << "\n\n\t\t\t****************************************************\n\n";
    cout << "\t\t\t\t<<<<<< || A N N A P U R N A || >>>>>>\t\t\t\t\n\n\n";

    cout << "\t\t\tDirector::Mr.Divyansh Govil \t\t  Estd : 1995\n";
    cout << "\t\t\tOwner::Mr.Piyush Gupta\n";
    cout << "\t\t\tCordinator::Ms.Anandita\n";
    cout << "\t\t\tTotal chefs::10\n";
    cout << "\t\t\tTotal Servants::20\n";
    cout << "\t\t\tManager::Mr.Gaurav Kesarwani\n\n";
    cout << "\t\t\t*******************************************************\n\n";
    cout << "\t\t"
        "We have been serving mouth-watering delicacies to our customers since 1995.\n\t\tWe always aspire to provide excellent services to our customers.\n\n\n\n";
    choose();
    break;
```

```cpp
    default:
        cout << "\n\tSir, I think there must have been some misunderstanding. Kindly check the address
again.\n";
        exit(0);
        break;
    }
}

void show_menu()//function to show menu card
{
    system("cls");
    cout << "\t\t\t\t\t\t*****************************\n";
    slow();
    cout << "\t\t\t\t\t\tWelcome to Annapurna Restaurant \n";
    slow();
    cout << "\t\t\t\t\t\t*****************************\n\n\n";
    slow();

    cout << " =========================================================Menu
Card=========================================================\n";
    slow();
    cout << "|                                                                  |\n";
    slow();
    cout << "|                                                                  |\n";
    slow();
    cout << "|                                                                  |\n";
    slow();
    cout << "|            Veg Soup:-              Starters:-            Indian Breads:-
|\n";
    slow();
    cout << "|                                                                  |\n";
    slow();
    cout << "|        |Items:          Price:  |   |Items:        Price:  |   |Items:        Price:  |
|\n";
    slow();
    cout << "|        |1.Tomato Soup        Rs70/unit|    |1.Cocktail Samosa     Rs15/unit|    |1.Chapati
Rs10/unit|        |\n";
    slow();
```

```cpp
    cout << "|         |2.Spinach Soup      Rs80/unit|   |2.Veg Pattice       Rs20/unit|    |2.Paratha
Rs15/unit|      |\n";
    slow();
    cout << "|         |3.Sweet Corn Soup    Rs90/unit|   |3.Veg Roll         Rs20/unit|    |3.Naan
Rs15/unit|      |\n";
    slow();
    cout << "|         |4.Hot&Sour Soup      Rs60/unit|   |4.Veg Manchurian    Rs25/unit|
|4.Kulcha        Rs18/unit|      |\n";
    slow();
    cout << "|                                                     |5.Bhatura      Rs20/unit|      |\n";
    slow();
    cout << "|                                                                  |\n";
    slow();
    cout << "|                                                                  |\n";
    slow();
    cout << "|                                                                  |\n";
    slow();
    cout << "|             Vegetable:-             Salad:-             Sweet:-         |\n";
    slow();
    cout << "|                                                                  |\n";
    slow();
    cout << "|      |Items:        Price:  |  |Items:        Price:  |  |Items:       Price:  |
|\n";
    slow();
    cout << "|      |1.Veg Makhani      Rs140/unit|  |1.Green Salad      Rs80/unit |   |1.Gualab
Jamun   Rs30/unit|     |\n";
    slow();
    cout << "|      |2.Paneer Kadai     Rs150/unit|  |2.Alu Chat        Rs50/unit |   |2.Rasgulla
Rs30/unit|     |\n";
    slow();
    cout << "|      |3.Paneer Mattar    Rs140/unit|  |3.Russian Salad    Rs100/unit|  |3.Gajar
Halwa   Rs40/unit|     |\n";
    slow();
    cout << "|                                     |4.ShriKhand      Rs50/unit |                    |\n";
    slow();
    cout << "|                                     |5.Jalebi        Rs30/unit |                    |\n";
    slow();
```

```cpp
    cout << "|                                                    |\n";
    slow();
    cout << "|                                                    |\n";
    slow();
    cout << "|                    Beverages:-                 Ice cream:-                    |\n";
    slow();
    cout << "|                                                    |\n";
    slow();
    cout << "|          |Items:         Price:  |      |Items:              Price:  |      |\n";
    slow();
    cout << "|          |1.Cold-drink      Rs15/unit|      |1.Vanilla           Rs30/unit|      |\n";
    slow();
    cout << "|          |2.Cold-Coffee     Rs40/unit|      |2.Strawberry        Rs30/unit|      |\n";
    slow();
    cout << "|          |3.Tea         Rs15/unit|      |3.Chocolate         Rs30/unit|      |\n";
    slow();
    cout << "|          |4.Hot-Coffee      Rs20/unit|      |4.Vanilla with Chocolate Sauce Rs50/unit|      |\n";
    slow();
    cout << "|                                                    |\n";
    slow();
    cout << "|                                                    |\n";
    slow();
    cout << "=================================================================================================================================\n";
    slow();
}

int choose_menu()//function to choose categories
{
    int n;
    cout << "\t\t\t********************************\n";
    cout << "\t\t\t Welcome to Annapurna Restaurant \n";
    cout << "\t\t\t********************************\n\n\n";
    cout << "---------------------------------------------------------------------------------\n";
```

```cpp
    cout << "\n\n\t\t\tCart:-\t"
        << cart;
    cout << "\t\t\tWhat do you want to have sir? \n";
    cout << "\t\t\t1.Veg Soup\n\t\t\t2.Starter\n\t\t\t3.Indian
Breads.\n\t\t\t4.Vegeatbles\n\t\t\t5.Salad\n\t\t\t6.Sweet\n\t\t\t7.Baverages\n\t\t\t8.Ice
Cream\n\t\t\t";
    cin >> n;
    system("cls");
    return n;
}

void display()//function to dislplay categories
{

    int n;
    int a, b, c, d, e, f, g, h;
    int choice;
    int soup[] = {70, 80, 90, 60};      //price of different soup
    int starter[] = {15, 20, 20, 25};   //price of different starter
    int breads[] = {10, 15, 15, 18, 20}; //price of different breads
    int vegetables[] = {140, 150, 140};  //price of different vegeatbles
    int salad[] = {80, 50, 100};        //price of different salad
    int sweet[] = {30, 30, 40, 50, 30};  //price of different sweet
    int baverages[] = {15, 40, 15, 20};  //price of different baverages
    int icecream[] = {30, 30, 30, 50};   //price of different ice cream

    switch(choose_menu())
      {

      case 1:
      {
        cout << "\n\n\t\t********************************\n";
        cout << "\t\t Welcome to Annapurna Restaurant \n";
        cout << "\t\t********************************\n\n\n";

        cout << "\n\n\t\t********************************\n";
        cout << "\n\t\t\t  Veg Soup:-\n\n";
```

```cpp
            cout << "\n\n\t\tItems:\t\t\tPrice:\n";
            cout << "\t\t1.Tomato Soup\t\tRs70/unit\n";
            cout << "\t\t2.Spinach Soup\t\tRs80/unit\n";
            cout << "\t\t3.Sweet Corn Soup\tRs90/unit\n";
            cout << "\t\t4.Hot&Sour Soup\t\tRs60/unit\n\n\n";
            cout << "\t\t******************************\n\n\n";
            cout << "\t\tWhat you want to choose:-";
            cin >> a;
            cout << "\t\tQuantity :-";
            cin >> n;
            menu->Soup(a, n);
            Price = soup[a - 1] * n + Price;
            cout << "\n\t\t\t\tNet Worth=" << Price;
            cart += n;
            break;
        }
        case 2:
        {
            cout << "\n\n\t\t******************************\n";
            cout << "\t\t Welcome to Annapurna Restaurant \n";
            cout << "\t\t******************************\n\n\n";
            cout << "\t\t******************************\n\n\n";
            cout << "\n\t\t\t  Starter:-\n\n";
            cout << "\t\tItems:\t\t\tPrice:\n";
            cout << "\t\t1.Cocktail Samosa\tRs15/unit\n";
            cout << "\t\t2.Veg Pattice\t\tRs20/unit\n";
            cout << "\t\t3.Veg Roll\t\tRs20/unit\n";
            cout << "\t\t4.Veg Manchurian\tRs25/unit\n\n\n";
            cout << "\t\t******************************\n\n\n";
            cout << "\t\tWhat you want to choose:-";
            cin >> b;
            cout << "\t\tQuantity :-";
            cin >> n;
            menu->Starter(b, n);
            Price = starter[b - 1] * n + Price;
            cout << "\n\t\t\t\tNet Worth=" << Price;

            cart += n;
            break;
        }
```

```cpp
case 3:
{
    cout << "\n\n\t\t********************************\n";
    cout << "\t\t Welcome to Annapurna Restaurant \n";
    cout << "\t\t********************************\n\n\n";
    cout << "\t\t********************************\n\n\n";
    cout << "\n\t\t\t  Indian Breads:-\n\n";
    cout << "\t\tItems:\t\t\tPrice:\n";
    cout << "\t\t1.Chapati\t\tRs10/unit\n";
    cout << "\t\t2.Paratha\t\tRs15/unit\n";
    cout << "\t\t3.Naan\t\t\tRs15/unit\n";
    cout << "\t\t4.Kulcha\t\tRs18/unit\n";
    cout << "\t\t5.Batura\t\tRs20/unit\n\n\n";
    cout << "\t\t********************************\n\n\n";
    cout << "\t\tWhat you want to choose:-";
    cin >> c;
    cout << "\t\tQuantity :-";
    cin >> n;
    Price = Price + breads[c - 1] * n;
    menu->Breads(c, n);
    cout << "\n\t\t\t\tNet Worth=" << Price;
    cart += n;
    break;
}
case 4:
{
    cout << "\n\n\t\t********************************\n";
    cout << "\t\t Welcome to Annapurna Restaurant \n";
    cout << "\t\t********************************\n\n\n";
    cout << "\t\t********************************\n\n\n";
    cout << "\n\t\t\t  Vegetables:-\n\n";
    cout << "\t\tItems:\t\t\tPrice:\n";
    cout << "\t\t1.Veg Makhani\t\tRs140/unit\n";
    cout << "\t\t2.Paneer Kadai\t\tRs150/unit\n";
    cout << "\t\t3.Paneer Mattar\t\tRs140/unit\n\n\n";
    cout << "\t\t********************************\n\n\n";
    cout << "\t\tWhat you want to choose:-";
```

```cpp
            cin >> d;
            cout << "\t\tQuantity :-";
            cin >> n;
            Price = vegetables[d - 1] * n + Price;
            menu->Vegetables(d, n);
            cout << "\n\t\t\t\tNet Worth=" << Price;
            cart += n;
            break;
        }
        case 5:
        {
            cout << "\n\n\t\t*******************************\n";
            cout << "\t\t Welcome to Annapurna Restaurant \n";
            cout << "\t\t*******************************\n\n\n";
            cout << "\t\t*******************************\n\n\n";
            cout << "\n\t\t\t  Salad:-\n\n";
            cout << "\t\tItems:\t\t\tPrice:\n";
            cout << "\t\t1.Green Salad\t\tRs80/unit\n";
            cout << "\t\t2.Alu Chat\t\tRs50/unit\n";
            cout << "\t\t3.Russian Salad\t\tRs100/unit\n\n\n";
            cout << "\t\t*******************************\n\n\n";
            cout << "\t\tWhat you want to choose:-";
            cin >> e;
            cout << "\t\tQuantity :-";
            cin >> n;
            Price = salad[e - 1] * n + Price;
            menu->Salad(e, n);
            cout << "\n\t\t\t\tNet Worth=" << Price;

            cart += n;
            break;
        }
        case 6:
        {
            cout << "\n\n\t\t*******************************\n";
            cout << "\t\t Welcome to Annapurna Restaurant \n";
            cout << "\t\t*******************************\n\n\n";
            cout << "\t\t*******************************\n\n\n";
            cout << "\n\t\t\t  Sweet:-\n\n";
            cout << "\t\tItems:\t\t\tPrice:\n";
```

```cpp
        cout << "\t\t1.Gualab Jamun\t\tRs30/unit\n";
        cout << "\t\t2.Rasgulla\t\tRs30/unit\n";
        cout << "\t\t3.Gajar Halwa\t\tRs40/unit\n";
        cout << "\t\t4.ShriKhand\t\tRs50/unit\n";
        cout << "\t\t5.Jalebi\t\tRs30/unit\n\n\n";
        cout << "\t\t******************************\n\n\n";
        cout << "\t\tWhat you want to choose:-";
        cin >> f;
        cout << "\t\tQuantity :-";
        cin >> n;
        Price = sweet[f - 1] * n + Price;
        menu->Sweet(f, n);
        cout << "\n\t\t\t\tNet Worth=" << Price;
        cart += n;
        break;
    }
    case 7:
    {
        cout << "\n\n\t\t******************************\n";
        cout << "\t\t Welcome to Annapurna Restaurant \n";
        cout << "\t\t******************************\n\n\n";
        cout << "\t\t******************************\n\n\n";
        cout << "\n\t\t\t Baverages:-\n\n";
        cout << "\t\tItems:\t\t\tPrice:\n";
        cout << "\t\t1.Cold-drink\t\tRs15/unit\n";
        cout << "\t\t2.Cold-Coffee\t\tRs40/unit\n";
        cout << "\t\t3.Tea\t\tRs15/unit\n";
        cout << "\t\t4.Hot-Coffee\t\tRs20/unit\n\n\n";
        cout << "\t\t******************************\n\n\n";
        cout << "\t\tWhat you want to choose:-";
        cin >> g;
        cout << "\t\tQuantity :-";
        cin >> n;
        Price = baverages[g - 1] * n + Price;
        menu->Baverages(g, n);
        cout << "\n\t\t\t\tNet Worth=" << Price;
        cart += n;
```

```cpp
            break;
        }

        case 8:
        {
            cout << "\n\n\t\t******************************\n";
            cout << "\t\t Welcome to Annapurna Restaurant \n";
            cout << "\t\t******************************\n\n\n";
            cout << "\t\t******************************\n\n\n";
            cout << "\n\t\t\t  Ice Cream:-\n\n";
            cout << "\t\tItems:\t\t\tPrice:\n";
            cout << "\t\t1.Vanilla\t\t\tRs30/unit\n";
            cout << "\t\t2.Strawberry\t\t\tRs30/unit\n";
            cout << "\t\t3.Choclate\t\t\tRs30/unit\n";
            cout << "\t\t4.Vanilla with Choclate Sauce\tRs50/unit\n\n\n";
            cout << "\t\t******************************\n\n\n";
            cout << "\t\tWhat you want to choose:-";
            cin >> h;
            cout << "\t\tQuantity :-";
            cin >> n;
            Price = icecream[h - 1] * n + Price;
            menu->Icecream(h, n);
            cout << "\n\t\t\t\tNet Worth=" << Price;
            cart += n;
            break;
        }
        default:
        {

            cout << "\n\t\t*********** Wrong input!Please try again ************\n\n\n\n";
            display();
        }
        }
}

void billGenerator()//Customer bill generator
{


    cout << "\n\n\t\t******************************\n";
```

```cpp
cout << "\t\t Welcome to Annapurna Restaurant \n";
cout << "\t\t******************************\n\n\n";

cout << "\n\t\t\tThank you Sir/Mam for Ordering \n\n\n";
cout << "-------------------------------------------------------------------------------------------\n\n";
time_t t;
time(&t);
string name;
int mobno;
int mode;
string address;
int gst = 8;
float discount;
int a;
cout << "\t\tCustomer Details:-\n\n\n";
cout << "\t\tCustomer Name::";
fflush(stdin);
getline(cin,name);
fflush(stdin);
cout << "\t\tMobile number::";
cin >> mobno;
cout << "\t\tAddress::";
fflush(stdin);
getline(cin,address);
fflush(stdin);
paymo:
cout << "\t\tSelect payment Mode::\n\t\t 1 for Cash\n\t\t 2 for Credit Card\n\t\t 3 for Debit Card\n\t\t";
fflush(stdin);
cin >> mode;
if (mode != 1 && mode != 2 && mode != 3)
{
    cout << "\t\tThe payment mode that you have selected is invalid. Please try again.";
    goto paymo;
}
fflush(stdin);
cout << "\t\tDo you have any Coupon Code:-\n";
```

```cpp
        cout << "\t\t1.for yes\n\t\t0.for no\n\t\t";
        cin >> a;
        if (a == 0)
        {
            goto next;
        }
        else if (a == 1)
        {
            cout << "\n\t\tYay!You have got 50% discount\n";
            discount = (Price * (float(0.5)));
        }
next:
        cout << "\n\n\n";
        cout << "\t\t\t *********************************************\n";
        slow1();
        cout << "\t\t\t          Customer Receipt\n";
        slow1();
        cout << "\t\t\t        **********************\n";
        slow1();
        cout << "\t\t\t     <<<<<<< || A N N A P U R N A || >>>>>>\n\n\n\n";
        slow1();
        fflush(stdin);
        cout << "\t\t\t\tName:: "<<name<<"\n\n";
        slow1();
        fflush(stdin);
        cout << "\t\t\t\tMob no:: " << mobno << "\n\n";
        slow1();
        fflush(stdin);
        cout << "\t\t\t\tAddress:: "<<address<<"\n\n";
        slow1();
        fflush(stdin);
        switch (mode)
        {
        case 1:
        {
            cout << "\t\t\t\tMode of Payment::Cash\n\n";
            slow1();
            break;
        }
        case 2:
```

```cpp
            {
                cout << "\t\t\t\tMode of Payment::Credit Card\n\n";
                slow1();
                break;
            }
        case 3:
            {
                cout << "\t\t\t\tMode of Payment::Debit Card\n\n";
                slow1();
                break;
            }
        }
        fflush(stdin);

        cout << "\n\t\t\t\tTotal items in Cart:: " << cart << endl;
        slow1();
        cout << "\n\t\t\t\tTotal price:: Rs " << Price << endl;
        slow1();
        cout << "\n\t\t\t\tDiscount:: Rs "<< discount<<endl;
        slow1();
        cout << "\n\t\t\t\tTotal payable price:: Rs "<<(Price - discount)<<endl;
        slow1();
        cout<<"\n\t\t\t\tCurrent time:: "<<ctime(&t); slow1();
        cout<<"\n\n\t\t\t\tHave a nice day.\n\n\n\n"; slow1();

cout<<"\t\t\t *********************************************\n"; slow1();
        cout<<"\n\n\n-----------------------------------------------------------------------*********-----------------
------------------------------------------------------------\n\n\n";
    }
};

int main()//main function
{
    start_prog stp;
    system("color f1");
    int n;
    stp.Price=0;
```

```cpp
   stp.cart=0;
   stp.start();
   int a;
   char b;
   char arr[] = {'n', 'y'};
   while (1)
   {
      cout << "\n\n\t\tDo you Want to choose again\n\t\t1 for yes \n\t\t0 for no\n\t\t";
      cin >> a;
      b = arr[a];
      if (b == 'y')
      {
         cout << "-------------------------------------------------------------------------------------\n\n\n";
         system("cls");
         stp.display();
      }
      else if (b == 'n')
      {
         cout << "\n\t\t\t\tThank you Sir\n\n\n";
         cout << "-------------------------------------------------------------------------------------\n\n";

         break;
      }
      else
      {
         cout << "Wrong Input";
      }
   }
   system("cls");
   stp.billGenerator();
   cout << "\t\t\tDo you want to close Restaurant or continue it\n\t\t\t0.Close
\n\t\t\t1.Continue\n\t\t\t";
   cin >> n;
   if (n == 1)
   {
      system("cls");
      main();
   }
   else if (n == 0)
   {
```

```
    return 0;

  }
}
```

Result and discussion :-

```
                            *********************************
                            Welcome to Annapurna Restaurant
                            *********************************


==============================================Menu Card==========================================
|                                                                                                |
|                                                                                                |
|                                                                                                |
|         Veg Soup:-                     Starters:-                   Indian Breads:-             |
|                                                                                                |
|    |Items:           Price:  |    |Items:           Price:  |    |Items:           Price:  |   |
|    |1.Tomato Soup     Rs70/unit|   |1.Cocktail Samosa Rs15/unit|   |1.Chapati         Rs10/unit|   |
|    |2.Spinach Soup    Rs80/unit|   |2.Veg Pattice    Rs20/unit|   |2.Paratha         Rs15/unit|   |
|    |3.Sweet Corn Soup Rs90/unit|   |3.Veg Roll       Rs20/unit|   |3.Naan            Rs15/unit|   |
|    |4.Hot&Sour Soup   Rs60/unit|   |4.Veg Manchurian Rs25/unit|   |4.Kulcha          Rs18/unit|   |
|                                                                |5.Bhatura         Rs20/unit|   |
|                                                                                                |
|                                                                                                |
|         Vegetable:-                     Salad:-                       Sweet:-                   |
|                                                                                                |
|    |Items:           Price:  |    |Items:           Price:  |    |Items:           Price:  |   |
|    |1.Veg Makhani     Rs140/unit|   |1.Green Salad    Rs80/unit |   |1.Gualab Jamun   Rs30/unit|   |
|    |2.Paneer Kadai    Rs150/unit|   |2.Alu Chat       Rs50/unit |   |2.Rasgulla       Rs30/unit|   |
|    |3.Paneer Mattar   Rs140/unit|   |3.Russian Salad  Rs100/unit|   |3.Gajar Halwa    Rs40/unit|   |
|                                 |4.ShriKhand      Rs50/unit |                                  |
|                                 |5.Jalebi         Rs30/unit |                                  |
|                                                                                                |
|              Beverages:-                              Ice cream:-                              |
|                                                                                                |
|    |Items:           Price:  |            |Items:                    Price:  |                |
|    |1.Cold-drink      Rs15/unit|           |1.Vanilla                 Rs30/unit|               |
|    |2.Cold-Coffee     Rs40/unit|           |2.Strawberry              Rs30/unit|               |
|    |3.Tea             Rs15/unit|           |3.Chocolate               Rs30/unit|               |
|    |4.Hot-Coffee      Rs20/unit|           |4.Vanilla with Chocolate Sauce  Rs50/unit|         |
|                                                                                                |
|                                                                                                |
==================================================================================================
              *********************************
```

```
         *********************************


              Starter:-

         Items:              Price:
         1.Cocktail Samosa   Rs15/unit
         2.Veg Pattice       Rs20/unit
         3.Veg Roll          Rs20/unit
         4.Veg Manchurian    Rs25/unit


         *********************************


         What you want to choose:-3
         Quantity :-2
          *************************************
          |                            |     |
          |                            |     |
          |                            |     |
          |     Dish:-           Unit:- |     |
          |                            |     |
          |     3.Veg Roll        2    |     |
          |                            |     |
          |                            |     |
          |                            |     |
          |                            |     |
          *************************************

                 Net Worth=40

         Do you Want to choose again
         1 for yes
         0 for no
```

```
*********************************



        Sweet:-

Items:                  Price:
1.Gualab Jamun          Rs30/unit
2.Rasgulla              Rs30/unit
3.Gajar Halwa           Rs40/unit
4.ShriKhand             Rs50/unit
5.Jalebi                Rs30/unit


*********************************


What you want to choose:-3
Quantity :-2
 ***************************************
 |                                     |
 |                                     |
 |                                     |
 |                                     |
 |       Dish:-           Unit:-       |
 |                                     |
 |       3.Gaajar Halwa      2         |
 |                                     |
 |                                     |
 |                                     |
 |                                     |
 ***************************************
             Net Worth=120

Do you Want to choose again
1 for yes
0 for no
```

```
    *********************************
     Welcome to Annapurna Restaurant
    *********************************



        Thank you Sir/Mam for Ordering


----------------------------------------------------------------------------------

        Customer Details:-


    Customer Name::abc
    Mobile number::123
    Address::xyz
    Select payment Mode::
     1 for Cash
     2 for Credit Card
     3 for Debit Card
    1
    Do you have any Coupon Code:-
    1.for yes
    0.for no
    1

    Yay!You have got 50% discount



        *************************************************
                        Customer Receipt
                *************************
             <<<<<< || A N N A P U R N A || >>>>>>


            Name:: abc
```

```
                    Total payable price:: Rs 60

                    Current time:: Sun May 23 15:26:02 2021


                         Have a nice day.



          *************************************************



-----------------------------------------------------*********--------------------------------------------------------
--


                    Do you want to close Restaurant or continue it
                    0.Close
                    1.Continue
                    0

Process returned 0 (0x0)   execution time : 253.639 s
Press any key to continue.
```

```
                    Address::xyz
                    Select payment Mode::
                     1 for Cash
                     2 for Credit Card
                     3 for Debit Card
                    1
                    Do you have any Coupon Code:-
                    1.for yes
                    0.for no
                    1

                    Yay!You have got 50% discount



                 *************************************************
                            Customer Receipt
                         ************************
                    <<<<<< || A N N A P U R N A || >>>>>>



                    Name:: abc

                    Mob no:: 123

                    Address:: xyz

                    Mode of Payment::Cash


                    Total items in Cart:: 4

                    Total price:: Rs 120

                    Discount:: Rs 60

                    Total payable price:: Rs 60

                    Current time:: Sun May 23 15:26:02 2021
```

Conclusion :-

The project entitled "RESTAURANT MANAGEMENT SYSTEM" has been proposed to be implementing to replace the manual system.

• The developed system accomplishes all the objectives stated for the need for the change of the

system.

• The project is user friendly.

• Different principles of OOP have been implemented in this program.

• Although graphics has not been used in this project, the user defined functions produce a

satisfactory output.

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