using System;

using System.Collections.Generic;

using System.Text;

namespace StructuralDesignPatternsDemo1

{

public class Employee

{

public int ID { get; set; }

public string Name { get; set; }

public string Designation { get; set; }

public decimal Salary { get; set; }

public Employee(int id, string name, string designation, decimal salary)

{

ID = id;

Name = name;

Designation = designation;

Salary = salary;

}

}

public class ThirdPartyBillingSystem

{

//ThirdPartyBillingSystem accepts employees information as a List to process each employee salary

public void ProcessSalary(List<Employee> listEmployee)

{

foreach (Employee employee in listEmployee)

{

Console.WriteLine("Rs." + employee.Salary + " Salary Credited to " + employee.Name + " Account");

}

}

}

public interface ITarget

{

void ProcessCompanySalary(string[,] employeesArray);

}

public class EmployeeAdapter : ITarget

{

ThirdPartyBillingSystem thirdPartyBillingSystem = new ThirdPartyBillingSystem();

public void ProcessCompanySalary(string[,] employeesArray)

{

string Id = null;

string Name = null;

string Designation = null;

string Salary = null;

List<Employee> listEmployee = new List<Employee>();

for (int i = 0; i < employeesArray.GetLength(0); i++)

{

for (int j = 0; j < employeesArray.GetLength(1); j++)

{

if (j == 0)

{

Id = employeesArray[i, j];

}

else if (j == 1)

{

Name = employeesArray[i, j];

}

else if (j == 1)

{

Designation = employeesArray[i, j];

}

else

{

Salary = employeesArray[i, j];

}

}

listEmployee.Add(new Employee(Convert.ToInt32(Id), Name, Designation, Convert.ToDecimal(Salary)));

}

Console.WriteLine("Adapter converted Array of Employee to List of Employee");

Console.WriteLine("Then delegate to the ThirdPartyBillingSystem for processing the employee salary\n");

thirdPartyBillingSystem.ProcessSalary(listEmployee);

}

}

class AdpaterPattern3

{

static void Main(string[] args)

{

string[,] employeesArray = new string[5, 4]

{

{"101","John","SE","10000"},

{"102","Smith","SE","20000"},

{"103","Dev","SSE","30000"},

{"104","Pam","SE","40000"},

{"105","Sara","SSE","50000"}

};

ITarget target = new EmployeeAdapter();

Console.WriteLine("HR system passes employee string array to Adapter\n");

target.ProcessCompanySalary(employeesArray);

Console.Read();

}

}

}