Bahria University,

Karachi Campus



LAB EXPERIMENT NO.

\_\_\_06\_\_\_

LIST OF TASKS

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| TASK NO | OBJECTIVE |
| **01** | Implement Factory pattern for creating pages and popups(Modals, Alerts, etc.) in website for pages separate interface defined and for popups separate interface defined. |
| **02** | Implement factory pattern for creating Ranks/Positions of employees. |
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Submitted On

02-06-2023

(Date: DD/MM/YY)

**Task No. 1:** Implement Factory pattern for creating pages and popups(Modals, Alerts, etc.) in website for pages separate interface defined and for popups separate interface defined.

**Solution:**

**Main Method:**

Console.WriteLine("=========Select Desired Operation===========");

Console.WriteLine("What do you want to look:\n1)Page \n2)Pop-up ");

int x = int.Parse(Console.ReadLine());

Console.WriteLine("");

Console.WriteLine("=======Enter that Page or Pop-up Name========");

string type = Console.ReadLine().ToLower();

switch (x){

case 1:

page\_interface pgobj = Program.get\_pageObj(type);

Console.WriteLine(pgobj.get\_welcome());

break;

case 2:

popup\_Interface popobj = Program.get\_popObject(type);

Console.WriteLine(popobj.Be\_carefull());

break;}

**Interface Page**

interface Page\_interface{

string get\_welcome();}

class Home : Page\_interface{

public string get\_welcome(){

return "Welcome to Home Page";}}

class About : Page\_interface{

public string get\_welcome(){

return "Welcome to About Page";}}

class Contact : Page\_interface{

public string get\_welcome(){

return "Welcome to Contact Page";}}

**Interface Pop-up**

interface popup\_Interface{

string Be\_carefull();}

class Information : popup\_Interface{

public string Be\_carefull(){

return "Welcome to Information Page";}}

class Warning : popup\_Interface{

public string Be\_carefull(){

return "Welcome to Warning Page \n Be Alert!";}}

**Class Program**

public static Page\_interface get\_pageObj(string type){

Page\_interface pageObj = null;

if (type.ToLower() == "home"){

pageObj = new Home();}

else if (type.ToLower() == "about"){

pageObj = new About();}

else if (type.ToLower() == "contact"){

pageObj = new Contact();}

else

return null;

return pageObj;}

public static popup\_Interface get\_popObject(string type){

popup\_Interface popObj = null;

if (type.ToLower() == "information"){

popObj = new Information();}

else if (type.ToLower() == "warning"){

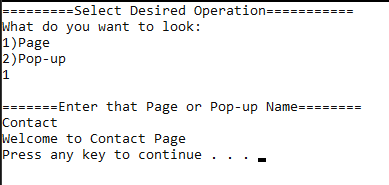
popObj = new Warning();}

else

return null;

return popObj;

**Output:**



**Task No. 2:** Implement factory pattern for creating Ranks/Positions of employees.

**Solution:**

**Interface IEmpoyee**

interface IEmpoyee{

string getrank();

void details();}

**Class Employee1**

class Employee1 : IEmpoyee{

public string getrank(){

Console.Write("Rank / Postion : ");

return "manager";}

public void details(){

Console.WriteLine("Name: Mutayyab");

Console.WriteLine("Hired date: 28-03-2020");

Console.WriteLine("Company Name: Textile Company");}}

**Class Employee2**

class Employee2 : IEmpoyee{

public string getrank(){

Console.Write("Rank / Postion : ");

return "Developer";}

public void details(){

Console.WriteLine("Name: abc");

Console.WriteLine("Hired date: 01-01-2000");

Console.WriteLine("Company Name: Textile Company");}}

**Class Object Creation**

class ObjectCreation{

public static IEmpoyee getObject(string type){

IEmpoyee obj = null;

if (type.ToLower() == "employee1"){

obj = new Employee1();}

else{

obj = new Employee2();}

return obj;}}

**Main Method**

class Program{

static void Main(string[] args){

Console.Write("Enter Employee id : ");

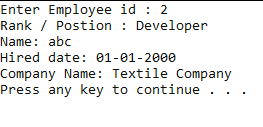
string type = Console.ReadLine();

IEmpoyee obj = ObjectCreation.getObject(type);

Console.WriteLine(obj.getrank());

obj.details();}}

**Output:**

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Description automatically generated