

Project Name: NGO Platform Management

Team Members

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Admin Class

- **Purpose** : Authentication for Admins Login.
- **Variables** : username, password. //Private variable
TotalRequiredMoney , TotalCollectedMoney // Public variable
- **Constructor** : Admin()
- **Methods** : get set Method,
Login() , AdminMenu () // Void Method
- **Control Flow** : By using Conditional Statements inside while Loop.

Interface

- display--
 - Virtual Method : Display()
- donate --
 - Virtual Method : Donate()

Abstract Class

- **Class Name:** BaseCategory
- **Inheritance:** Inherit from multiple class of interface
- **Features :** String type field as Name,
Constructor // BaseCategory(),
Abstract method // SpecialFeature().
- **Operation :** Interface methods.

FundCategory Class

- **Objective** : To get Donating option.
- **Inheritance** : Inherit from BaseCategory class.
- **Features** :
 - Constructor // by Passing new Name as parameter
 - Sum operators (+) // for adding two categories at the same time.
 - override Method //SpecialFeatures
 - CategoryMenu() Method. // to use Loop
- **Control Flow** : Conditional statements inside while Loop.
 - Example- if (Choice=="1")
 - { 1. Donate }
 - else if (Choice=="0")
 - { 2. Back }

Static Class

- ❑ **Class Name :** Donation class.

- ❑ **Objective :** To use Donating information in every categories.

- ❑ **Methods :** Static Method // MakeDonation()

- ❑ **Features :** User inputs for Donating information
 - Name,
 - Email Id,
 - Country,
 - ID Type :
 - 1. Passport
 - 2. NID // Using Conditional Statements

 - Payment Method
 - Donation Amount

FundGroup Class

- ❑ **Properties** : String type Group Name, 5 Referenced Topic from FundCategory.
- ❑ **Purpose** : To Use as Base Class for Subcategories class.
- ❑ **Constructor** : public FundGroup()
- ❑ **Methods** : LoadDefaultCategories() // Virtual Method
Void Menu()
- ❑ **Objects** : Topic1 – Topic5 // inside Virtual Method
- ❑ **Control Flow** : Inside Loop by using Conditional Statements
Example- if (Choice=="1")
 { Topic1.CategoryMenu(); }
 else if
 { }

Natural Disaster Relief Fund Class

- ❑ **Objective** : To Make a sub categories class.
- ❑ **Inheritance** : Inherit from FundGroup class.
- ❑ **Constructor** : DisasterReliefFund() : base ("Natural Disaster Relief Fund")
- ❑ **Methods** : LoadDefaultCategories() // Override Method
- ❑ **Objects** : Topic1 -- Topic5
- ❑ **Subcategories** :
 - 1."Emergency Help"
 - 2."Medical Help"
 - 3."Shelter Help"
 - 4."Homeless Families Support"
 - 5." Safety Support".

WarzoneReliefFund

- Similar to Disaster Relief Fund Class.
- Sub Categories:**
 - 1."Emergency Help"
 - 2."Medical Help"
 - 3."Shelter Help"
 - 4."Refugee Families Support"
 - 5." Safety Support".

AnimalShelterFund

- Similar to Disaster Relief Fund class.
- Sub Categories:**
 - 1. "Food & Items"
 - 2. "Animal Treatment"
 - 3. "Shelter Support"
 - 4. "Adoption Help"
 - 5. "Rescue Work"

Health Care support Fund Class

- **Objective** : To Make a sub categories class.
- **Inheritance** : Inherit from FundGroup class.
- **Constructor** : HealthCareSupportFund() : base ("HealthCare Support Fund")
- **Methods** : LoadDefaultCategories() // Override Method
- **Objects** : Topic1 -- Topic5
- **Subcategories** :
 - 1." Vaccines"
 - 2."Hospital Tools"
 - 3."Free Checkup Camps"
 - 4."Health Awareness"
 - 5." Patient Help".

EducationSupport Fund

- **Objective** : To Make a sub categories class.
- **Inheritance** : Inherit from FundGroup class.
- **Constructor** : EducationSupportFund() : base ("Education Support Fund")
- **Methods** : LoadDefaultCategories() // Override Method
- **Objects** : Topic1 -- Topic5
- **Subcategories** :
 1. "School Items"
 2. "Study Scholarships"
 3. "Teacher Trainings"
 4. "Library Support"
 5. "Student Help".

Main Class

- **Purpose** : To Control the entire Code flows.

- **Objects** : Admin, Disaster, Warzone, Animal, Health, Edu.

- **Fund Options** : Showing Output of Fund options(1 -5).

- **User Input** : Choice (String Type)

- **Control Flow** : Inside While Loop using Conditional statements.
Example: if (choice==1)
 { Disaster.Menu(); }
 else if
 else if (Choice == 6)
 { inside nested conditions (admin.AdminMenu()) will be called }
 else
 { “ Invalid Choice. ” }

Output Demo

```
NGO FUND PLATFORM
1. Disaster Relief Fund
2. Warzone Relief Fund
3. Animal Shelter Fund
4. Healthcare Support Fund
5. Education Support Fund
6. Admin Login
0. Exit
Choose: 4
```

- Choosing 4th option as Fund Option

```
Healthcare Support Fund
1. Vaccines
2. Hospital Tools
3. Free Checkup Camps
4. Health Awareness
5. Patient Help
0. Back
Choose: 3
```

- Choosing 3rd option as Sub Category

```
Free Checkup Camps
1. Donate
0. Back
Choose: 1
```

- Choosing 1 to Donate

```
Donation for Free Checkup Camps
Your Name: Taspriya Sultana
Email ID: taspriya11@gmail.com
Country: Bangladesh

Choose ID Type:
1. Passport
2. NID
Select (1/2): 2
Enter Payment Method: Mobile Banking
NGO's Payment Number: 01293734445
Donation Amount: 2000

Thank you for Donating.
Donate again? (y/n): n
```

- Giving Donating Information by giving n leaving donate option.

```
Healthcare Support Fund
1. Vaccines
2. Hospital Tools
3. Free Checkup Camps
4. Health Awareness
5. Patient Help
0. Back
Choose: 0
```

- By choosing Back coming back to Main Home Page.

Admin's Option

```
NGO FUND PLATFORM
1. Disaster Relief Fund
2. Warzone Relief Fund
3. Animal Shelter Fund
4. Healthcare Support Fund
5. Education Support Fund
6. Admin Login
0. Exit
Choose: 6
```

- Choosing 6th For admins Options.

```
Admin Username: admin
Admin Password: 1234
Admin Login Successful!
```

- Giving Admins Informations and login in for any updates or changes.

```
Select Fund (1-5): 4
```

```
--- ADMIN PANEL (Healthcare Support Fund) ---
```

- 1. Change Fund Name
- 2. Change Category Name
- 3. Change Required Money
- 4. View Fund Money Status
- 0. Logout

```
Choose: 4
```

```
--- FUND MONEY STATUS ---
```

```
Required Money : 90000000
Collected Money: 2000
```

- Choosing 4 to see fund money status and can watch funds money status.

```
--- ADMIN PANEL (Healthcare Support Fund) ---
```

- 1. Change Fund Name
- 2. Change Category Name
- 3. Change Required Money
- 4. View Fund Money Status
- 0. Logout

```
Choose: 0
```

- Can choose any other options too for more upadates in site. By choosing Logout option can comeback to home page .

Conclusion

- ❑ The project demonstrates the application of Object-Oriented Programming principles through interfaces, abstraction, inheritance, and polymorphism
- ❑ The system organizes various donation types using a hierarchical class structure, ensuring clean separation of responsibilities.

THANK YOU