



AMERICAN INTERNATIONAL UNIVERSITY–BANGLADESH (AIUB)

Dept. of Computer Science
Faculty of Science and Technology

CSC2210: OBJECT ORIENTED PROGRAMMING 2

Spring 2024-2025

Section: [U]

Group No: 03

Project Report On

Project Name [Insurance Management System]

Supervised By

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Submitted By:

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CO2: Display and verify the mean of a real-life Project using the concepts of C# Graphical User Interface based environment with database integration to depict a desktop-based application.

Assessment Criteria	Not Attended/ Incorrect (0)	Inadequate (1-2)	Average (3)	Good (4)	Excellent (5)
Evaluation Criteria	Evaluation Definition				Total =
Requirement fulfillment	Properly demonstrate a real-life scenario-based project with proper functional requirement identification for the Object-Oriented Programming project development activities.				
Validation	Ensuring the ability of students' proper demonstration on validation forms in their system in terms of dealing with the data.				
Verification	Identifying if the students can verify the system data along with proper functional requirements in terms of data flow.				

Table of Contents:

Page no.

1. Chapter :01 (Introduction)-----	03
2. Chapter :02(User Story)-----	03
3. Chapter :03 (ER Diagram)-----	05
4. Chapter :03 (SQL Queries)-----	06
5. Chapter:04 (Screenshots) -----	09

Chapter : 01 (Introduction)

Insurance Management System is a simple software application made to help manage insurance packages and users in an organized way. It makes things easier for both the Admin and the Users. With this system, admins can create different insurance packages, set prices, and keep track of everything. Users can view the packages, buy them, and even leave feedback.

Here's what the system can do:

- **User Management:** Admins and users can log in with their own accounts and access different parts of the system based on their roles. Users can sign up if they don't have an account, and then log in to access their dashboard. Admins and users have different access based on their roles.
- **Package Management:** Admins can add new insurance packages, edit details, or delete them if needed.
- **Package Pricing:** Each package has its own price which users can see before buying.
- **Buy Packages:** Users can choose and purchase the insurance package they want.
- **Feedback System:** Users can give feedback after buying a package, and Admins can view that feedback.
- **Insurance Info Management:** Admins can see all the information related to purchased insurance and manage it easily.

The system uses SQL Server to store and manage all the data properly. It keeps everything safe, organized, and easy to find. This project helps reduce paperwork and makes the whole insurance process faster and smoother for everyone.

Chapter : 02(User Story)

As a User,

I want to sign up and log in,
So that I can access the system with my own account.

- The system checks for valid user credentials.
- New user details are saved in the user table.

As a User,

I want to view available insurance packages,
So that I can choose the right one for me.

- The system shows all active packages from the package table.
- Package details include coverage, duration, and price.

As a User,

I want to purchase an insurance package,
So that I can get coverage as per my need.

- The selected package is recorded in the purchase table.
- Payment details are saved to the purchase record.

As a User,

I want to give feedback after buying a package,
So that I can share my experience.

- My feedback is saved in the feedback table.
- Admins can view my feedback.

As an Admin,

I want to log in securely,
So that only authorized personnel can manage the system.

- The system checks admin credentials before giving access.

As an Admin,

I want to add, update, or delete insurance packages,
So that I can manage what users can buy.

- Package details are saved or updated in the package table.
- Deleted packages are no longer visible to users.

As an Admin,

I want to view all purchased packages,
So that I can track who bought what and when.

- The system displays purchase records with user details.

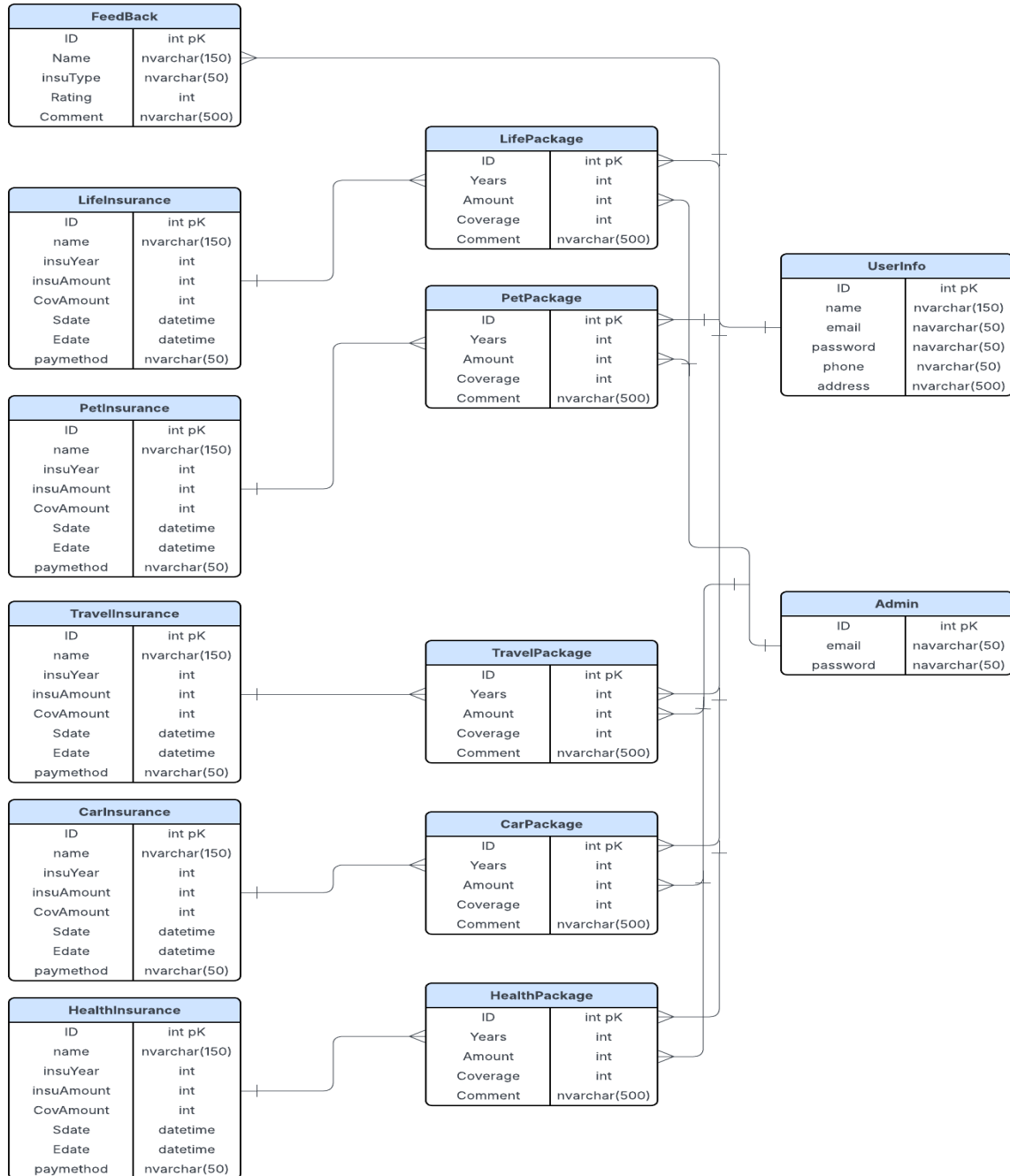
As an Admin,

I want to see user feedback,
So that I can understand user satisfaction and improve services.

- Feedbacks are displayed with related user and package info.

Chapter : 03

(ER Diagram)

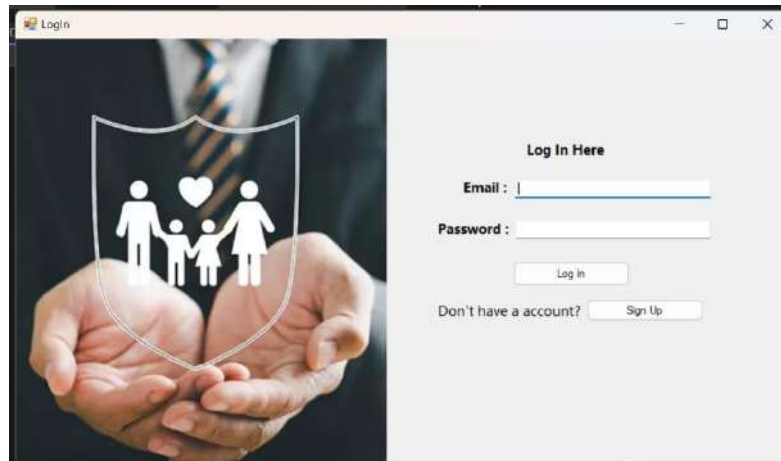


(SQL Queries)

1. `$"SELECT COUNT(*) FROM Admin WHERE Email = '{email}' AND Password = '{password}'";`
2. `$"SELECT COUNT(*) FROM UserInfo WHERE Email = '{email}' AND Password = '{password}'";`
3. `$"SELECT Name FROM UserInfo WHERE Email = '{email}' AND Password = '{password}'";`
4. `string query = $"insert into UserInfo values ('{name}','{email}','{password}','{phone}','{adress}')";`
5. `$"select * from LifeInsurance";`
6. `$"INSERT INTO LifeInsurance VALUES ('{name}', '{insuYear}', '{insuAmount}', '{CovAmount}', '{Sdate}', '{Edate}', '{paymethod}')";`
7. `$"UPDATE LifeInsurance SET Name = '{name}', InsuYear = '{insuYear}', InsuAmount = '{insuAmount}', CovAmount = '{CovAmount}', Sdate = '{Sdate}', Edate = '{Edate}', PayMethod = '{paymethod}' WHERE ID = {ID}";`
8. `$"select * from HealthInsurance";`
9. `$"INSERT INTO HealthInsurance VALUES ('{name}', '{insuYear}', '{insuAmount}', '{CovAmount}', '{Sdate}', '{Edate}', '{paymethod}')";`
10. `$"UPDATE HealthInsurance SET Name = '{name}', InsuYear = '{insuYear}', InsuAmount = '{insuAmount}', CovAmount = '{CovAmount}', Sdate = '{Sdate}', Edate = '{Edate}', PayMethod = '{paymethod}' WHERE ID = {ID}";`
11. `$"INSERT INTO CarInsurance VALUES ('{name}', '{insuYear}', '{insuAmount}', '{CovAmount}', '{Sdate}', '{Edate}', '{paymethod}')";`
12. `$"UPDATE CarInsurance SET Name = '{name}', InsuYear = '{insuYear}', InsuAmount = '{insuAmount}', CovAmount = '{CovAmount}', Sdate = '{Sdate}', Edate = '{Edate}', PayMethod = '{paymethod}' WHERE ID = {ID}";`
13. `$"select * from PetInsurance";`
14. `$"INSERT INTO PetInsurance VALUES ('{name}', '{insuYear}', '{insuAmount}', '{CovAmount}', '{Sdate}', '{Edate}', '{paymethod}')";`
15. `$"UPDATE PetInsurance SET Name = '{name}', InsuYear = '{insuYear}', InsuAmount = '{insuAmount}', CovAmount = '{CovAmount}', Sdate = '{Sdate}', Edate = '{Edate}', PayMethod = '{paymethod}' WHERE ID = {ID}";`
16. `$"select * from TravelInsurance";`
17. `$"INSERT INTO TravelInsurance VALUES ('{name}', '{insuYear}', '{insuAmount}', '{CovAmount}', '{Sdate}', '{Edate}', '{paymethod}')";`
18. `$"UPDATE TravelInsurance SET Name = '{name}', InsuYear = '{insuYear}', InsuAmount = '{insuAmount}', CovAmount = '{CovAmount}', Sdate = '{Sdate}', Edate = '{Edate}', PayMethod = '{paymethod}' WHERE ID = {ID}";`
19. `$"select Years,Amount,Coverage,Comment from HealthPackages";`
20. `$"DELETE FROM HealthPackages WHERE ID = {ID}";`
21. `$"INSERT INTO HealthPackages VALUES ('{Years}', '{Amount}','{Coverage}','{Comment}')";`
22. `$"UPDATE HealthPackages SET Years = '{Years}', Amount = '{Amount}', Coverage = '{Coverage}', Comment = '{Comment}' WHERE ID = {ID}";`
23. `$"select * from LifePackages";`
24. `$"DELETE FROM LifePackages WHERE ID = {ID}";`

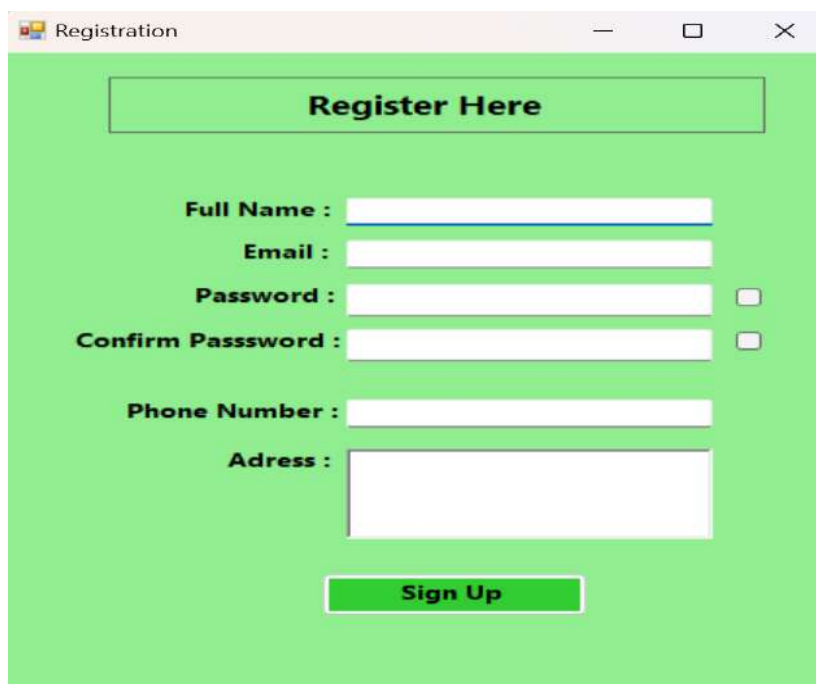
25. `"INSERT INTO LifePackages VALUES ('{Years}',
'{Amount}','{Coverage}','{Comment}')";`
26. `"UPDATE LifePackages SET Years = '{Years}', Amount = '{Amount}', Coverage
= '{Coverage}', Comment = '{Comment}' WHERE ID = {ID}";`
27. `"select * from PetPackages";`
28. `"DELETE FROM PetPackages WHERE ID = {ID}";`
29. `"INSERT INTO PetPackages VALUES ('{Years}',
'{Amount}','{Coverage}','{Comment}')";`
30. `"UPDATE PetPackages SET Years = '{Years}', Amount = '{Amount}', Coverage =
'{Coverage}', Comment = '{Comment}' WHERE ID = {ID}";`
31. `"select * from TravelPackages";`
32. `"DELETE FROM TravelPackages WHERE ID = {ID}";`
33. `"INSERT INTO TravelPackages VALUES ('{Years}',
'{Amount}','{Coverage}','{Comment}')";`
34. `"UPDATE TravelPackages SET Years = '{Years}', Amount = '{Amount}',
Coverage = '{Coverage}', Comment = '{Comment}' WHERE ID = {ID}";`
35. `"SELECT 'LifeInsurance' AS InsuranceType, * FROM LifeInsurance WHERE Name =
'{name}' " +
"UNION ALL SELECT 'HealthInsurance', * FROM HealthInsurance WHERE Name =
'{name}' " +
"UNION ALL SELECT 'CarInsurance', * FROM CarInsurance WHERE Name = '{name}' " +
"UNION ALL SELECT 'PetInsurance', * FROM PetInsurance WHERE Name = '{name}' " +
"UNION ALL SELECT 'TravelInsurance', * FROM TravelInsurance WHERE Name =
'{name}";`
36. `"select * from UserInfo";`
37. `"DELETE FROM UserInfo WHERE ID = {ID}";`
38. `"INSERT INTO UserInfo VALUES ('{name}', '{email}', '{password}', '{phone}',
'{adress}')";`
39. `"UPDATE UserInfo SET name = '{name}', email = '{email}', password =
'{password}', phone = '{phone}', adress = '{adress}' WHERE ID = {ID}";`
40. `"INSERT INTO FeedbackTable VALUES ('{Name}', '{InsuType}', {Rating},
'{Comment}')";`
41. `"select * from CarPackages";`
42. `"DELETE FROM CarPackages WHERE ID = {ID}";`
43. `"INSERT INTO CarPackages VALUES ('{Years}',
'{Amount}','{Coverage}','{Comment}')";`
44. `"UPDATE CarPackages SET Years = '{Years}', Amount = '{Amount}', Coverage =
'{Coverage}', Comment = '{Comment}' WHERE ID = {ID}";`
45. `"insert into CarInsurance values
('{name}','{insuYear}','{insuAmount}','{CovAmount}','{Sdate}','{Edate}','{paymetho
d}')";`
46. `"select * from Admin";`
47. `"DELETE FROM Admin WHERE ID = {ID}";`
48. `"INSERT INTO Admin VALUES ('{email}', '{password}')";`
49. `"UPDATE Admin SET email = '{email}', password = '{password}' WHERE ID =
{ID}";`
50. `"select * from FeedbackTable";`

Chapter: 04 (Screenshots)



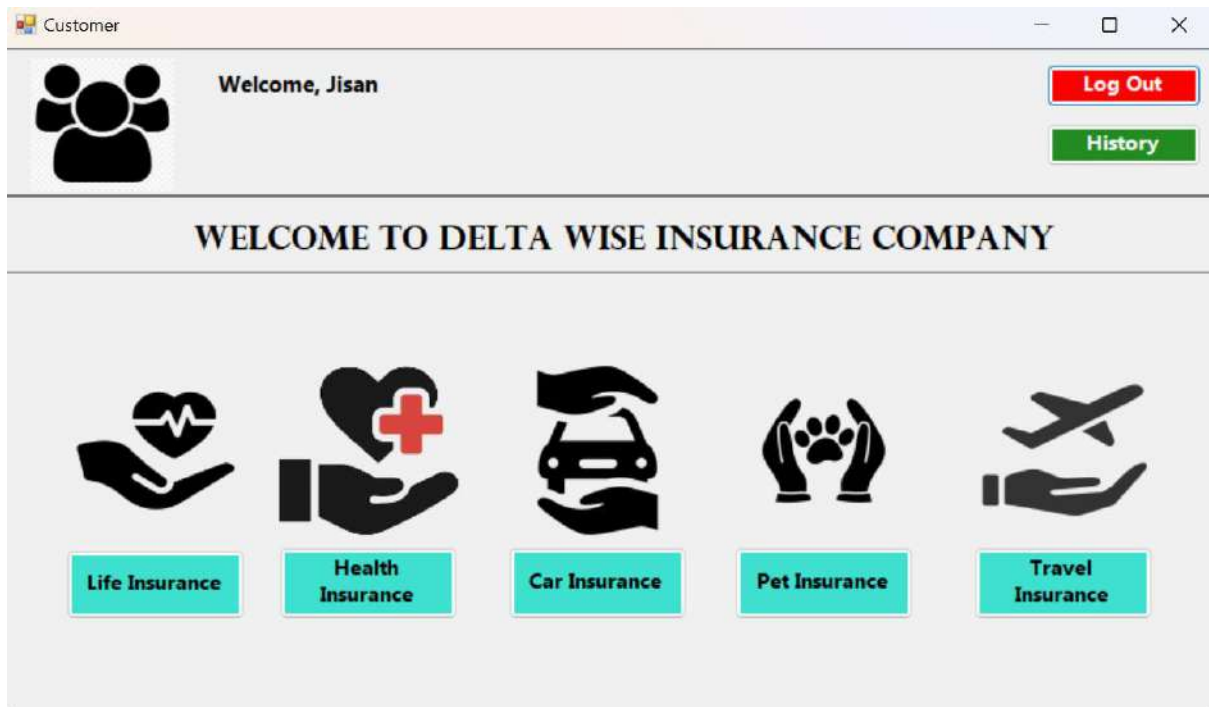
The screenshot shows a web browser window titled "Login". On the left side, there is a background image of a person in a suit holding a shield that contains a white icon of a family (two adults and two children) with a heart above them. On the right side, the form is titled "Log In Here". It includes an "Email :" label followed by a text input field, a "Password :" label followed by a text input field, a "Log In" button, and a link "Don't have a account?" followed by a "Sign Up" button.

Log In Form



The screenshot shows a web browser window titled "Registration". The form has a green background and is titled "Register Here" in a box at the top. Below the title, there are several input fields: "Full Name :", "Email :", "Password :", "Confirm Passsword :", "Phone Number :", and "Adress :". The "Password" and "Confirm Passsword" fields have small square checkboxes to their right. At the bottom of the form, there is a green "Sign Up" button.

Registration Form



User Interface

The screenshot shows a web application window titled "UserPurchase". The header includes a user icon, the text "Welcome, Jisan", and two buttons: "Log Out" (red) and "Back" (green). Below the header is a section titled "User Purchase History" containing a table with the following data:

	InsuranceType	ID	name	insu Year	insuAmount	Cov.Amount	Sdate	Edate
▶	LifeInsurance	16	Jisan	3	50000	70000	7/1/2025 2:03 AM	7/1/2028
	LifeInsurance	17	Jisan	10	300000	500000	7/1/2025 2:19 AM	7/1/2035
	HealthInsurance	7	Jisan	10	150000	250000	7/1/2025 8:11 PM	7/1/2035

Below the table is a large gray rectangular area, likely a placeholder for additional content or a scrollable list.

Purchase History Form

Life

—

□

×

SECURE YOUR LIFE

	Duration	Amount	Coverage Amount	Benefits
▶	1	20000	30000	Accidental & natural death cover
	3	50000	70000	Bonus on maturity, accidental death
	5	80000	100000	Bonus, maturity return, full protection
	10	150000	250000	High maturity bonus, accidental & natural death

Date :

Tuesday , July 1, 2025

Due Amount : \$20000

Payment Method : Mobile Banking

Pay Now

Life Insurance Packages

Health

—

□

×

HEALTH IS YOUR FIRST PRIORITY

	Duration	Amount	Coverage Amount	Benefits
	1	20000	30000	Hospitalization, surgery, emergency cover
▶	3	50000	70000	OPD, emergency, maternity benefits
	5	80000	100000	Full health + yearly checkups
	10	150000	250000	Full health care, surgery, critical illness coverage

Date :

Tuesday , July 1, 2025

Due Amount : \$50000

Payment Method : Card Payment

Pay Now

Health Insurance Packages

Car

SAVE YOUR DREAM CAR

	Duration	Amount	Coverage Amount	Benefits
	1	20000	30000	Accident, theft, third-party coverage ...
▶	3	50000	70000	Full cover, roadside assistance ...
	5	80000	100000	Depreciation protection, accident support ...
	10	150000	250000	Comprehensive, depreciation & engine protection ...

Date :

Tuesday
 ,
 July
 1, 2025

Due Amount : \$50000

Payment Method :

Cash

Pay Now

Car Insurance Packages

Pet

THINK FOR YOUR PET

	Duration	Amount	Coverage Amount	Benefits
	1	20000	30000	Vet visits, surgeries, vaccination cover
▶	3	50000	70000	Extended health cover, diagnostics
	5	80000	100000	Chronic illness, annual checkups
	10	150000	250000	Lifetime vet care, surgery, chronic illness cover

Date :

Tuesday
 ,
 July
 1, 2025

Due Amount : \$50000

Payment Method :

Pay Now

Pet Insurance Packages

Travel

FINISH YOUR BUCKET LIST

	Duration	Amount	Coverage Amount	Benefits
	1	20000	30000	Medical emergency, trip cancellation, baggage loss
▶	3	50000	70000	Missed flight, hotel cover, visa rejection support
	5	80000	80000	International full travel insurance
	10	150000	250000	Long-term global travel protection, all-inclusive

Date :

Tuesday , July 1, 2025

Due Amount :

\$50000

Payment Method :

Bank

Pay Now

Travel Insurance Packages

Feedback

Payment Successfull.

Give Us Your Feedback.

Insurance Type :

Life Insurance

Rating :

☐

1

☐

2

☐

3

☐

4

☒

5

Comment :

Good

Submit

Feed Back From

Life Insurance

AdminPanel

Admins

Users

Manage Life Insurance Info

Life Insurance

Health Insurance

Car Insurance

Pet Insurance

Travel Insurance

Feedbacks

Log Out

Add New

Refresh

Packages

Save

ID	Name	Insu. Year	Insu. Ar

ID :

Name :

Year :

Amount :

Coverage :

Start : Tuesday , Ju

Expiry : Tuesday , Ju

Payment :

Life Insurance Panel

LifePackages

AdminPanel

Back

Add New

Delete

Refresh

Save

	ID	Duration	Amount	Coverage Amount	Benefits
	1	1	20000	30000	Accidental & natural death cover
	2	3	50000	70000	Bonus on maturity, accidental death
	5	5	80000	100000	Bonus, maturity return, full protection
	7	10	150000	250000	High maturity bonus, accidental & natural ...

ID : 1

Year : 1


Amount : 20000

Coverage : 30000

Comment : Accidental & natural d

Life Insurance Package Admin View

Health Insurance


AdminPanel

Admins
Users

Manage Health Insurance Info

Life Insurance
Health Insurance
Car Insurance
Pet Insurance
Travel Insurance
Feedbacks
Log Out


Add New
Refresh
Packages
Save

ID	Name	Insu. Year	Insu. Amount
7	Jisan	10	150000

ID :
Name :
Year :
Amount :
Coverage :
Start : Tuesday Ju
Expiry : Tuesday Ju
Payment :

Health Insurance Panel

HealthPackages


AdminPanel


Back

Add New
Delete
Refresh
Save

ID	Duration	Amount	Coverage Amount	Benefits
1	1	20000	30000	Hospitalization, surgery, emergency cover
2	3	50000	70000	OPD, emergency, maternity benefits
3	5	80000	100000	Full health + yearly checkups
4	10	150000	250000	Full health care, surgery, critical illness co...

ID :
Year :
Amount :
Coverage :
Comment :

Health Insurance Package Admin View



AdminPanel

Admins

Users

Manage Car Insurance Info

Add New

Refresh

Packages

Save

ID	Name	Insu. Year	Insu.

ID :

Name :

Year :

Amount :

Coverage :

Start : Tuesday Ju ▾

Expiry : Tuesday Ju ▾

Payment :

Life Insurance

Health Insurance

Car Insurance


Pet Insurance

Travel Insurance

Feedbacks

Log Out

Car Insurance Panel



AdminPanel

Back

Add New

Delete

Refresh

Save

ID	Duration	Amount	Coverage Amount	Benefits
1	1	20000	30000	Accident, theft, third-party coverage ...
2	3	50000	70000	Full cover, roadside assistance ...
3	5	80000	100000	Depreciation protection, accident support...
4	10	150000	250000	Comprehensive, depreciation & engine pr...

ID :


Year :

Amount :

Coverage :

Comment :

Car Insurance Package Admin View


AdminPanel

Admins

Users

Manage Pet Insurance Info

Add New

Refresh

Packages

Save

ID	Name	Insu. Year	Insu.

ID :

Name :

Year :

Amount :

Coverage :

Start : Tuesday , Ju ▾

Expiry : Tuesday , Ju ▾

Payment :

Life Insurance

Health Insurance

Car Insurance


Pet Insurance

Travel Insurance

Feedbacks

Log Out

Pet Insurance Panel


AdminPanel

Back

Add New

Delete

Refresh

Save

ID	Duration	Amount	Coverage Amount	Benefits
1	1	20000	30000	Vet visits, surgeries, vaccination cover
2	3	50000	70000	Extended health cover, diagnostics
3	5	80000	100000	Chronic illness, annual checkups
4	10	150000	250000	Lifetime vet care, surgery, chronic illness ...

ID :

Year :


Amount :

Coverage :

Comment :

Pet Insurance Package Admin View

Travel Insurance


AdminPanel

Admins
Users

Manage Travel Insurance Info

Life Insurance
Health Insurance
Car Insurance
Pet Insurance
Travel Insurance
Feedbacks
Log Out

Add New
Refresh
Packages


Save

ID	Name	Insu. Year	Insu. Amount
4	Jisan	3	5000

ID :
Name :
Year :
Amount :
Coverage :
Start : Tuesday , Ju
Expiry : Tuesday , Ju
Payment :

Travel Insurance Panel

TravelPackages


AdminPanel

Back

Add New
Delete
Refresh

Save

ID	Duration	Amount	Coverage Amount	Benefits
1	1	20000	30000	Medical emergency, trip cancellation, bag...
2	3	50000	70000	Missed flight, hotel cover, visa rejection s...
3	5	80000	80000	International full travel insurance
4	10	150000	250000	Long-term global travel protection, all-incl...

ID :
Year :
Amount :
Coverage :
Comment :

Travel Insurance Package Admin View

Admins

AdminPanel

Admins

Users

Manage Life Insurance Info

Life Insurance

Health Insurance

Car Insurance

Pet Insurance

Travel Insurance

Feedbacks

Log Out

Add New

Delete

Refresh

Save

	ID	Email	Password
▶	1	jisan@admin.com	adminjisan
	3	oyshi@admin.com	adminoyshi
	4	ndi@admin.com	adminndi

ID : 1
Email : jisan@admin.com
Password : adminjisan

Admin Info Form

Users

AdminPanel

Admins

Users

Manage Life Insurance Info

Life Insurance

Health Insurance

Car Insurance

Pet Insurance

Travel Insurance

Feedbacks

Log Out

Add New

Delete

Refresh


Save

	ID	Name	Email
▶	1	Jisan	jisan@gmail.com
	2	Ridi	ridi@gmail.com
	3	Oyshe	oyshe@gmail.com
	7	Kuddus Mia	kuddus@gmail.com
	8	Tauhid	tauhid@gmail.com

ID :
Name :
Email :
Password :
Phone :
Adress :

User Info Form

AdminFeedback



AdminPanel

Admins

Users

Life Insurance

Health Insurance

Car Insurance

Pet Insurance

Travel Insurance

Feedbacks

Log Out

	ID	Name	Insu. Type	Rating	Comment
▶	1	Jisan	Life Insurance	5	Good
	2	Jisan	Car Insurance	1	Do not know.
	3	Kuddus Mia	Life Insurance	5	Excellent.
	4	Tauhid	Life Insurance	5	Good
	5	Jisan	Health Insurance	5	Good

Feed Back Admin View