



Project Report: FlyNova

1. Project Information

Project Name:

FlyNova

Developers:

Md Shariful Islam Rony

Nabid Ahmad

2. Project Details

Project Description

FlyNova is a comprehensive web-based platform designed to simplify the travel experience. It serves as a one-stop solution for booking flights, hotels, and holiday packages. The system bridges the gap between travelers and service providers by offering a seamless, user-friendly interface for searching, comparing, and booking travel services. With a robust backend and a modern frontend, FlyNova ensures reliability and ease of use for both customers and administrators.

Project Objectives

Centralized Booking: To provide a single platform for flight, hotel, and holiday package bookings.

User Convenience: To enable users to easily search, filter, and book travel options with real-time availability.

Efficiency: To streamline the booking process with instant confirmation and PDF ticket generation.

Accessibility: To ensure the platform is accessible and responsive across various devices.

Transparency: To provide clear pricing, dynamic price categorization (Low/Mid/High), and real-time status updates.

Technologies Used

Backend Framework: Django 5.2.8

(Python) Database: SQLite

(Development) / PostgreSQL

(Production ready)

Frontend: HTML5, CSS3, Bootstrap

5, JavaScript **Authentication:**

django-allauth (includes Google
OAuth)

PDF Generation: ReportLab

Image Processing: Pillow

Version Control: Git

3. Key Features

1. Multi-Service Booking Engine: Integrated search and booking for Flights, Hotels, and Holiday Packages. Unified booking management system handling multiple content types.

2. Advanced Flight Search & Filtering: Search by Origin, Destination, Date, and Passenger count. Dynamic Price Categorization: Automatically categorizes prices as "Low", "Mid", "High" based on statistical analysis of current listings.

3. Real-Time Airport Dashboard:

Displays live flight status (Scheduled, On Time, Landing Soon, Landed) for the next 24 hours.

4. Secure Authentication System:

User registration and login.

Google OAuth Integration: One-click sign-in using Google accounts.

5. User Dashboard & Ticket Management:

Personalized dashboard for viewing booking history.

Instant PDF Tickets: Users can download professional PDF tickets associated with their bookings.

6. Admin Management Panel:

Comprehensive tools for administrators to manage flights, airports, airlines, hotels, and packages.

4. User Experience (UX)

Overall User Experience

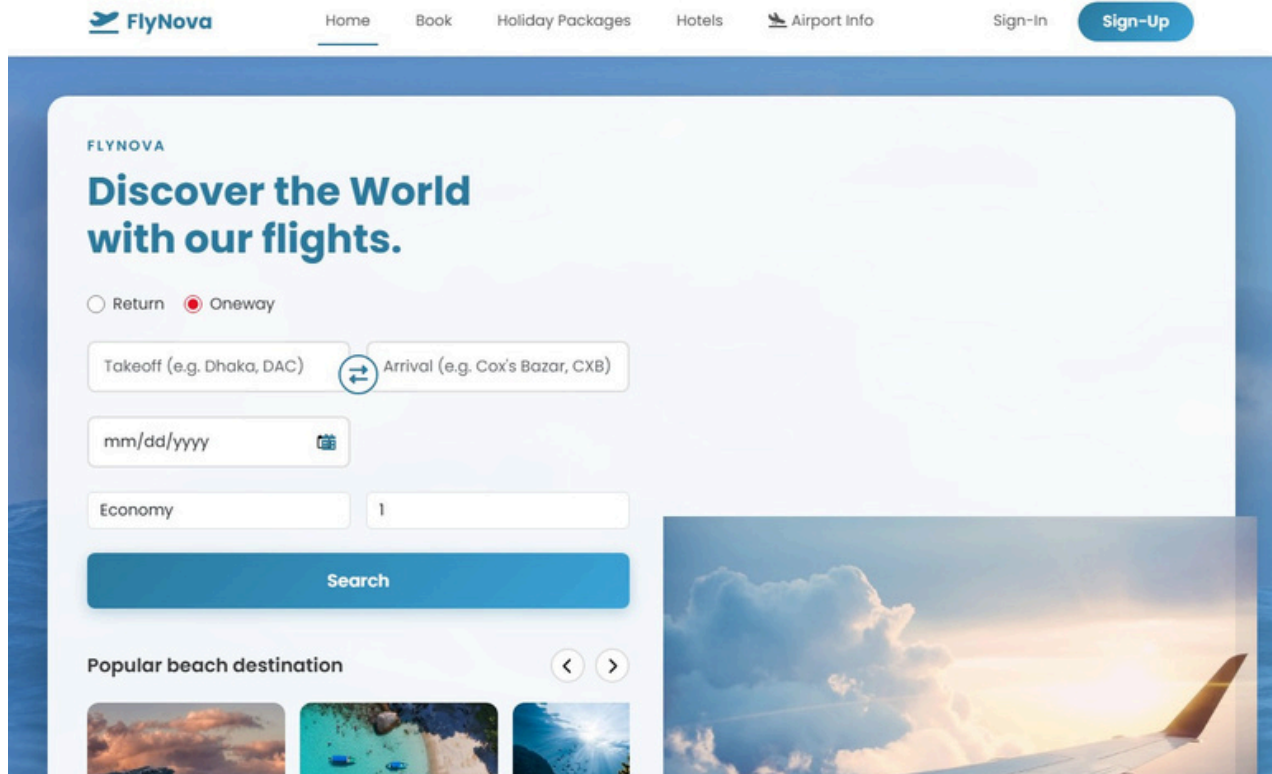
FlyNova offers a clean, modern, and intuitive user interface. The design prioritizes ease of navigation, with clear calls-to-action and a structured layout. The use of Bootstrap ensures responsiveness, making the site usable on desktops, tablets, and mobile phones. Visual cues, such as color-coded price tags and status indicators, help users make informed decisions quickly.

Ease of Use and Navigation

The navigation bar is consistent across all pages, providing quick access to Home, Flights, Hotels, Packages, and My Bookings. The flow from search to booking is linear and guided, minimizing user error. Forms are designed with validation to ensure correct data entry.

Page-wise Description


Home Page



The screenshot displays the FlyNova website's home page. At the top, a navigation bar includes the FlyNova logo, a 'Home' link, and buttons for 'Book', 'Holiday Packages', 'Hotels', and 'Airport Info'. On the right side of the navigation bar are 'Sign-In' and 'Sign-Up' buttons. The main content area features a large hero section with the text 'Discover the World with our flights.' Below this, there are radio buttons for 'Return' and 'Oneway' travel. A search form includes fields for 'Takeoff (e.g. Dhaka, DAC)' and 'Arrival (e.g. Cox's Bazar, CXB)', a date field with a calendar icon, a dropdown for 'Economy' class, and a field for the number of passengers (set to '1'). A prominent blue 'Search' button is located below the form. At the bottom of the hero section, there is a 'Popular beach destination' carousel with three image thumbnails and navigation arrows. A large, scenic image of a sunset over clouds with an airplane wing in the foreground is positioned on the right side of the page.

Screenshot of Home Page *The Home Page serves as the central hub, featuring a prominent search bar where users can toggle between Flights, Hotels, and Packages. It also displays featured destinations and current offers to inspire travelers.*

Flight Booking Page



[Home](#) [Book](#) [Holiday Packages](#) [Hotels](#) [Airport Info](#) [My Bookings](#) [admin_flynova](#)

Flight Search Results

From

To

mm/dd/yyyy

1

Update Search

Filter by Price:

All Prices

Low

Mid


High

Showing prices for 1 passenger


<div>Nova Air</div> <div>NV101</div>	<div>28 Dec, 2025</div> <div>15:13</div> <div>DAC</div> <div>Dhaka</div>	<div></div> <div>Duration</div> <div>1h 30m</div> <div>Non-stop</div>	<div>28 Dec, 2025</div> <div>16:13</div> <div>CXB</div> <div>Cox's Bazar</div>	<div>BDT 4500</div> <div>per person</div> <div>Select Flight</div>
<div>Novoair</div> <div>NO-982</div>	<div>26 Dec, 2025</div> <div>17:00</div> <div>ZYL</div> <div>Sylhet</div>	<div></div> <div>Duration</div> <div>1h 30m</div> <div>Non-stop</div>	<div>26 Dec, 2025</div> <div>18:00</div> <div>DAC</div> <div>Dhaka</div>	<div>BDT 3800</div> <div>per person</div> <div>Select Flight</div>
<div>US-Bangla Airlines</div> <div>US-957</div>	<div>26 Dec, 2025</div> <div>16:00</div> <div>DAC</div> <div>Dhaka</div>	<div></div> <div>Duration</div> <div>1h 30m</div> <div>Non-stop</div>	<div>26 Dec, 2025</div> <div>17:00</div> <div>CGP</div> <div>Chittagong</div>	<div>BDT 3200</div> <div>per person</div> <div>Select Flight</div>

Screenshot of Flight Search Results *This page displays the available flights matching the user's search criteria. It lists essential details like Airline, Flight Number, Times, and Price. Users can filter results and click "Book Now" to proceed.* Flight Page (Details & Airport Info)

Real-Time Airport Information

FlyNova

[Home](#) [Book](#) [Holiday Packages](#) [Hotels](#) [Airport Info](#) [My Bookings](#) [admin_flynova](#)

Real-Time Airport Information

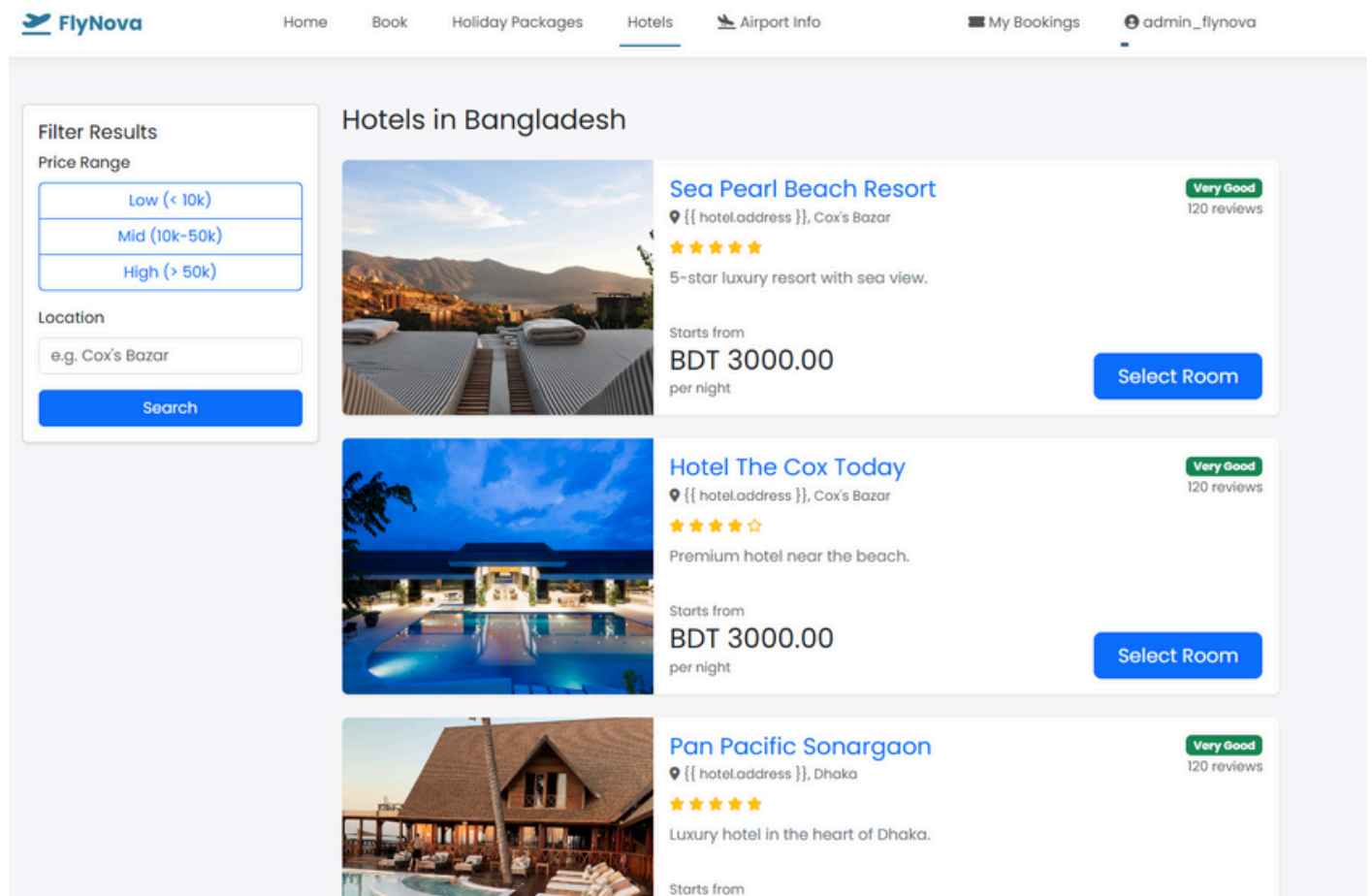
Live flight arrival information for all airports

Cox's Bazar Airport (CXB)
Cox's Bazar, Bangladesh

Flight Number	Airline	From	Scheduled Arrival	Status
NV101	Nova Air	DAC - Dhaka	28 Dec, 2025 16:13	+ On Time

Screenshot of Airport Information *The Airport Information page provides real-time updates on flight arrivals and departures, helping users track flight status (e.g., On Time, Landed) directly from the platform.* Hotel Page

Hotels Page



Screenshot of Hotel Search Results *The Hotel page lists available accommodations in the selected city. Each listing shows the hotel name, star rating, price per night, and an image, allowing users to compare options easily.*

Payment Page (Checkout) *The Checkout page is the final step before confirmation. It displays a summary of the booking, traveler details, and total price. Users can select their preferred payment method (Credit Card, bKash, Nagad) to complete the transaction.*

Google Authentication / Login Page

Holiday Packages

[Home](#)[Book](#)[Holiday Packages](#)[Hotels](#)[Airport Info](#)[My Bookings](#)[admin_flynova](#)

Holiday Packages

[Low](#) [Mid](#) [High](#)[Search](#)

Cox's Bazar Beach Holiday

[Cox's Bazar](#)

🕒 3 Days / {{ package.duration_nights }}
Nights

Enjoy the world's longest natural sea beach with hotel and sightseeing.

Starting from

BDT 15000.00

[View Details](#)[Book Now](#)

Sylhet Tea Garden Tour

[Sylhet](#)

🕒 4 Days / {{ package.duration_nights }}
Nights

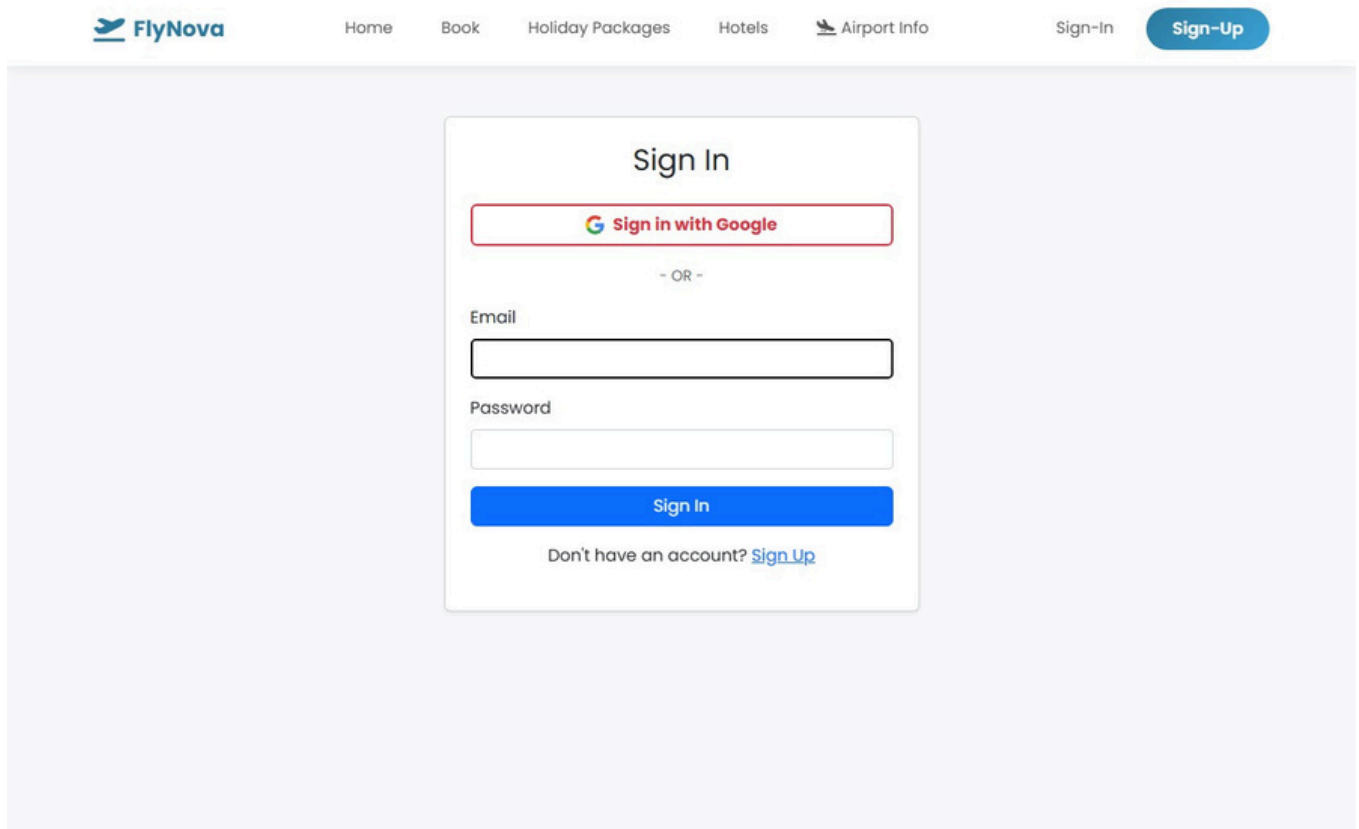
Explore the beautiful tea gardens and waterfalls of Sylhet.

Starting from

BDT 12000.00

[View Details](#)[Book Now](#)

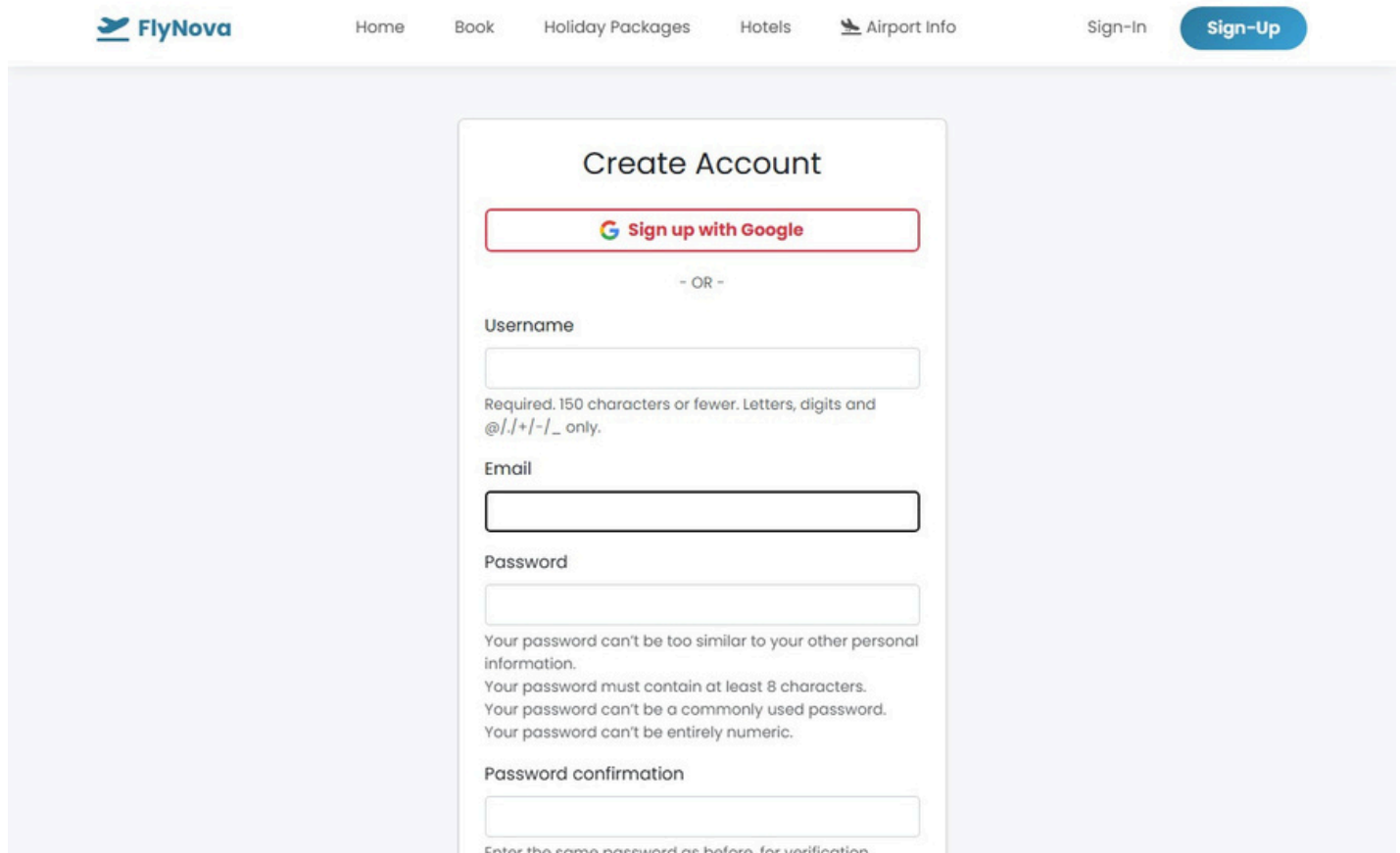
Login Page



The screenshot shows the FlyNova website's login interface. At the top, the FlyNova logo is on the left, and navigation links for Home, Book, Holiday Packages, Hotels, and Airport Info are in the center. On the right, there are links for Sign-In and a prominent Sign-Up button. The main content area features a central 'Sign In' form. This form includes a 'Sign in with Google' button, a separator '- OR -', and input fields for Email and Password. A blue 'Sign In' button is positioned below the password field. At the bottom of the form, there is a link for users who do not have an account: 'Don't have an account? [Sign Up](#)'.

Screenshot of Login Page *The Login page offers a secure entry point for users. It features standard email/password login and a prominent "Sign in with Google" button for quick access without remembering new passwords.* Registration Page

Signup Page



The screenshot shows the FlyNova website's signup page. The header includes the FlyNova logo and navigation links: Home, Book, Holiday Packages, Hotels, and Airport Info. On the right, there are links for Sign-In and a prominent Sign-Up button. The main content area features a 'Create Account' form. At the top of the form is a 'Sign up with Google' button. Below this is an 'OR' separator. The form then asks for a Username (with a 150-character limit and specific character requirements), an Email address, and a Password (with several security requirements listed). A Password confirmation field follows, with a note to 'Enter the same password as before, for verification.'

Create Account

[Sign up with Google](#)

- OR -

Username

Required. 150 characters or fewer. Letters, digits and @/./+/-/_ only.

Email

Password

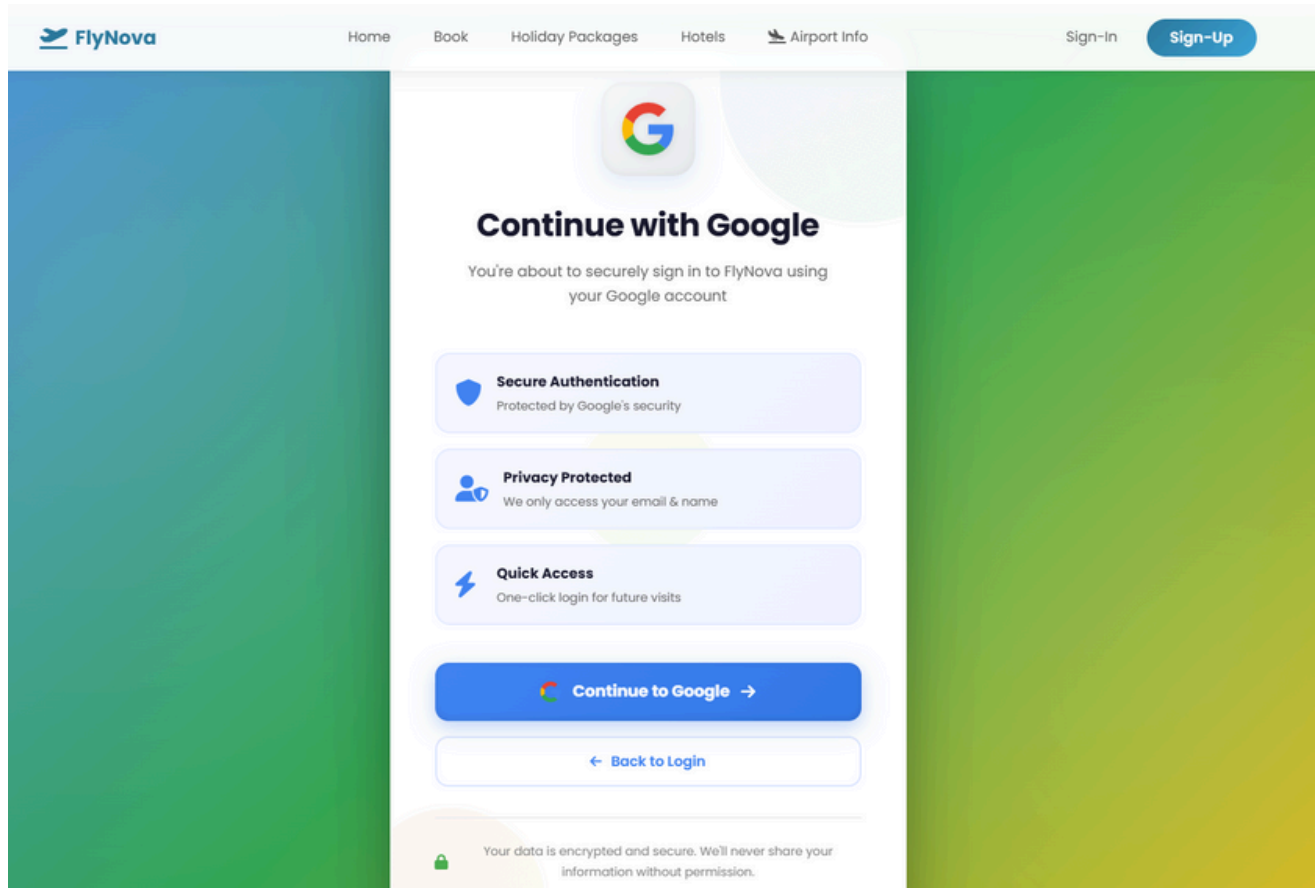
Your password can't be too similar to your other personal information.
Your password must contain at least 8 characters.
Your password can't be a commonly used password.
Your password can't be entirely numeric.

Password confirmation

Enter the same password as before, for verification.


Screenshot of Signup Page *The Registration page allows new users to create an account by providing their name, email, and password, ensuring they can manage their bookings efficiently.*

Google Authentication



The Login page offers a secure entry point for users. It features standard email/password login and a prominent "Sign in with Google" button for quick access without remembering new passwords.

Confirm Your Booking And Payment Method



[Home](#) [Book](#) [Holiday Packages](#) [Hotels](#) [Airport Info](#) [My Bookings](#) [admin_flynova](#)

Confirm Your Booking

Booking Summary

Package: Cox's Bazar Beach Holiday (3 Days)

Traveler Name


admin_flynova


Total Price


BDT 15000.00


Select payment method

Preferred method with secure transactions.

 Pay with Visa


 Pay with Mastercard

 Pay with bKash

 Pay with Nagad

Continue

Cancel



[Home](#) [Book](#) [Holiday Packages](#) [Hotels](#) [Airport Info](#) [My Bookings](#) [admin_flynova](#)

Confirm Your Booking

Booking Summary

Package: Cox's Bazar Beach Holiday (3 Days)


Traveler Name

admin_flynova

Total Price

BDT 15000.00

← Payment Details

 Secure Transaction via BKASH

Your Mobile Number

01XXXXXXXX

Your bKash/Nagad account number.

Transaction ID

Enter Transaction ID

Enter the transaction ID received after payment.

Pay & Confirm Booking

Booking Successfull Your Booking ID is #10



Booking Confirmed!

Thank you for booking with FlyNova.

Booking ID: #10

A confirmation email has been sent to flynova12@gmail.com.


[View My Bookings](#)[Back to Home](#)

My Bookings


My Bookings

ID	Service	Date	Status	Price	Action
#10	Cox's Bazar Beach Holiday	Dec 27, 2025	CONFIRMED	BDT 15000	Print PDF
#9	Nova Test Air TEST_PAY_99: DAC -> CXB	Dec 27, 2025	CONFIRMED	BDT 1500	Print PDF
#8	Hotel The Cox Today - Single	Dec 27, 2025	CONFIRMED	BDT 3000	Print PDF
#7	Sea Pearl Beach Resort - Single	Dec 27, 2025	CONFIRMED	BDT 3000	Print PDF
#5	Sea Pearl Beach Resort - Single	Dec 27, 2025	CONFIRMED	BDT 3000	Print PDF
#4	Nova Air NV101: DAC -> CXB	Dec 27, 2025	CONFIRMED	BDT 4500	Print PDF

Confirmed Booking

FlyNova

HomeBookHoliday PackagesHotelsAirport InfoMy Bookingsadmin_flynova



FlyNova

Travel Booking Confirmation

BOOKING ID: #4

CONFIRMED

Passenger Name:

admin_flynova

Email:

flynova12@gmail.com

Booking Date:

December 27, 2025 - 04:56 PM

Service:

Nova Air NV101: DAC -> CXB

Departure:


December 28, 2025 - 03:13 PM

Route:

Dhaka — Cox's Bazar

BDT 4500

Total Amount Paid



00000004

Important: Please carry a printed copy or digital copy of this ticket.

For any queries, contact us at support@flynova.com

Thank you for choosing FlyNova!

Print Ticket

Back to My Bookings