

User Guide

Login & Sign up

If you already have an account:

- Click 'Login'
- Enter username and password into the fields
- Click 'Submit'

To create a new account:

- Click 'Sign Up'
- Enter your desired username and password into the fields
- Click 'Submit'
- If your account is created successfully you will then be asked to login with your new credentials

Note – If the username you have selected is in use you will be asked to choose a different one

Ticket Booking

- Select the type of ticket desired from the drop down
- Current availability and price will be displayed
- Enter the desired quantity, total price will be displayed and relevant discounts applied
- Click 'Buy tickets'
- If the booking is successful you will receive a confirmation

Note – ticket quantities should be entered as numbers only (e.g. 1, 2, 3 etc)

Manage Bookings

The bookings management page will automatically display bookings associated with your account.

To cancel an order, enter the relevant booking reference into the field at the bottom of the page and click 'Cancel Tickets'

Note – The booking reference can be copied from the page or entered manually. This field is not case-sensitive.

Feedback

The feedback form can be used to leave general feedback, or by entering a booking reference into the relevant field, for a specific order.

Enter your booking reference (if applicable) and your feedback into the relevant areas and click 'Submit'. Your feedback will be displayed at the bottom of the screen along with any staff responses. Please allow 24 hours for our staff to respond to feedback where necessary.

Admin User Guide

To login as an admin follow the same steps for a user. You will be required to provide a username and password for an administrator account (by default: user: admin, pass: @dm1n123!)

Adjusting ticket availability

From the administrator home page:

- Click 'Adjust Availability'
- Select the ticket type from the dropdown box
- Current availability for the type selected will be shown
- Enter the new availability into the box and click 'Submit'

Note – Quantities should be entered as numbers only (e.g. 1, 2, 3 etc)

Viewing booking information

- Click 'View Bookings'
- To view all booking information click 'Retrieve Booking Info'
- To view booking information relating to a specific user or order enter the username or booking reference into the text box and click 'Retrieve Booking Info'
- Selected booking details can be downloaded in csv format by clicking 'Download Report'

Reports

The software can provide a number of useful reports relating to data such as :

- Total number of tickets sold
- Total income
- Total number of tickets sold per ticket type
- Total income per ticket type

To view these reports click 'Reports'. The reports can be downloaded in csv format by clicking 'Download Report'

Feedback

Admins can view and respond to feedback by clicking the 'Feedback' button.

From the feedback page:

- To view all feedback click 'Retrieve Feedback'
- To view feedback for a specific order enter either the feedback ID or booking reference into the text box and click 'Retrieve Feedback'
- To submit a response, enter the relevant feedback ID or booking reference into the text box, enter the response into the larger text field and click 'Submit'
- Feedback data can be downloaded as csv by clicking 'Download Report'

Software Maintenance

The front end for this software is designed in Anvil – anvil.works

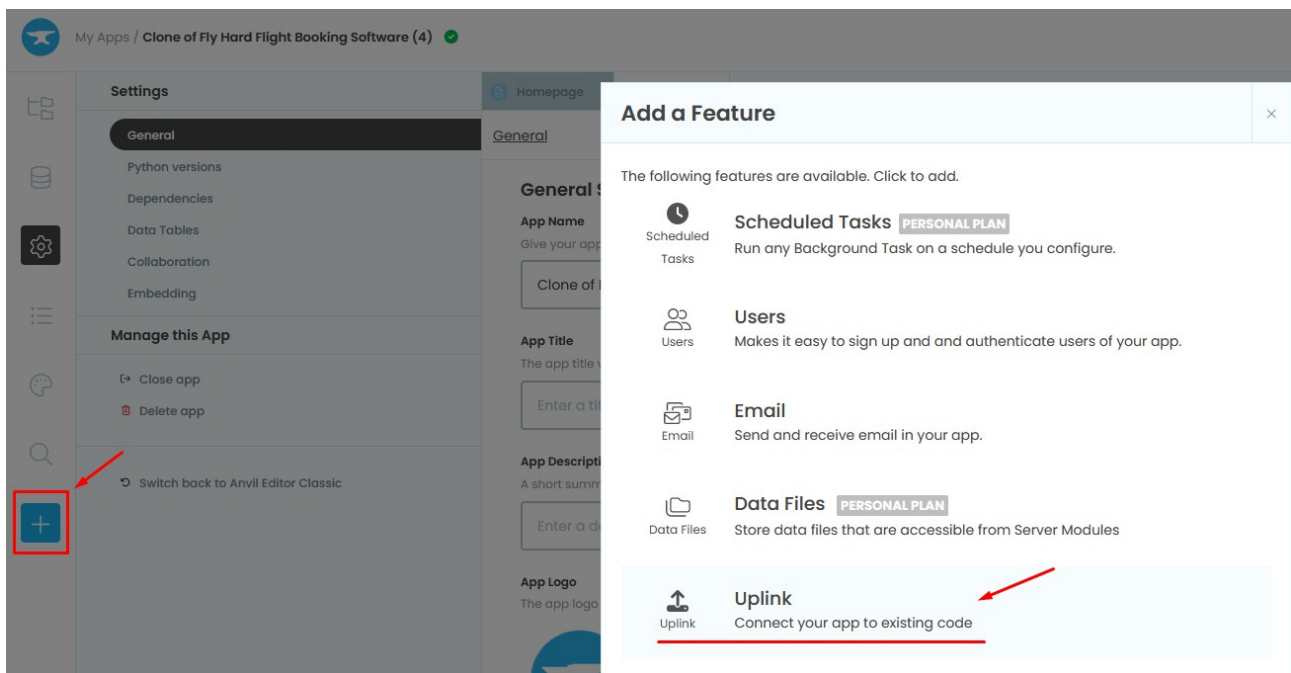
For help navigating and using Anvil please visit – anvil.works/docs/overview

Link to anvil app -

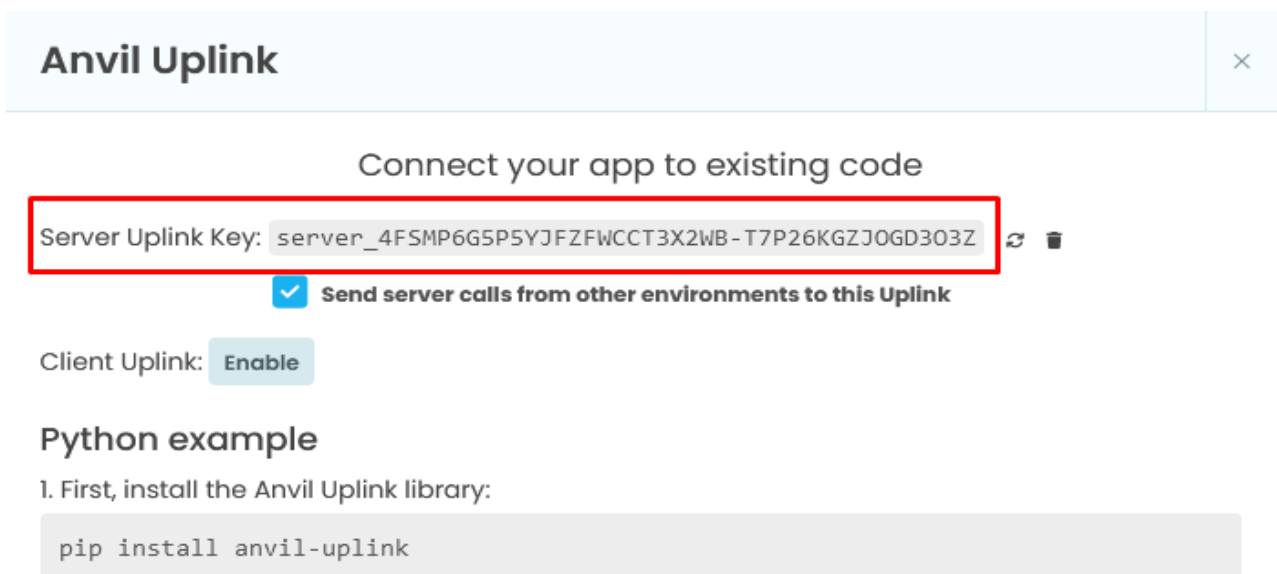
<https://anvil.works/build#clone:F6Y3KOBGAPC3NXIM=PENGBT6XFDUGM5TXCZQPLNRL>

For help connecting Anvil clone to Python back end – anvil.works/docs/uplink/quickstart or follow below steps.

1. After successfully cloning the app via the above link, click the blue 'Add' button from the sidebar and select 'Uplink'



2. Click 'Enable Server Uplink' and copy the server uplink key (Note: your key will be different to the one given in the screenshot below)



3. Run 'pip install anvil-uplink' in the Python console and wait for the install to complete
4. Locate the anvil server connection string at the top of the program and replace it with the server uplink key copied from step 2.

```
#published anvil server connection  
anvil.server.connect("server_4IRSBX06EROW6NX4Q0HGB5QD-F6Y3K0BGAPC3NXIM")
```

(Replace everything within the quotation marks with the copied server uplink key)

5. The SQL database connection string and file path string will also need to be updated to relevant locations on your local machine.

```
#desktop sql connection + filepath  
conn = pyodbc.connect('DRIVER={SQL Server};'  
                      'SERVER=SAM\SQLEXPRESS;'  
                      'DATABASE=FlightDB;'  
                      'Trusted_Connection=yes;')  
  
path = 'C:\\Users\\Sam\\OneDrive\\Coding Academy\\Assignment'
```

Back end programming is performed using the Python Spyder IDE – docs.spyder-ide.org
All code has been commented for ease of understanding and amendment and a brief description of each function is provided below for clarity.

Login/Sign up -

check_user – searches database for matching username and password and determines user's level of access (login = 1 for regular users, 2 for admins)

sign_up – checks for existing matches in database and if none are found inserts new user details

Ticket management -

discount – this function calculates ticket discount based on number of tickets

availability – retrieves ticket availability from database for given ticket type

price_update – retrieves ticket price from database for given ticket type

buy_ticket – random string generator for booking reference creation, checks if the generated string already exists in the database as booking references must be unique. When a unique booking ref has been generated, inserts booking details into database

update_availability – Updates ticket availability in database (after purchase or admin entry)

booking_info – retrieves booking data from database based on booking reference or username. Also creates dataframe for retrieved data for use in reports.

cancel_ticket – function for customers to cancel bookings, searches for matching booking reference, adds tickets back into availability and then deletes booking details

Feedback-

`user_feedback` – Checks for valid booking reference then inserts new feedback into database.

`get_user_feedback` - retrieves user feedback data from database based on matching username, feedback ID or bookings reference. Also creates dataframe with retrieved data for use in reports.

`admin_response` – updates admin response to user feedback based on either feedback ID or booking reference

Reports -

`generate_report` – retrieves booking data, calculates specific data for reports, storing it in dataframes

`download_report` – function to download previously generated reports to csv file