

FLYBOOK WEB APPLICATION FOR PILOTS LOGBOOK USER'S GUIDE 1.0

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Version experimental

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1. OVERVIEW

Flybook web application is aimed for pilots flying with small aircrafts. They may own the planes themselves or they are only flying with them. Eitherway in this application pilots can file their individual flights as a logbook.

Users must do login to the Flybook application and entering for the first time, they must do the registration.

Each flight will get an id and there will be information about pilot, departure time and departing airport, landing time and landing airport and few other things will be filed into logbook. Pilot can only add information about own flights. Also updating and deleting a flight from database can be done only for pilot's own flights. Reading and searching flights made by other pilots is ok.

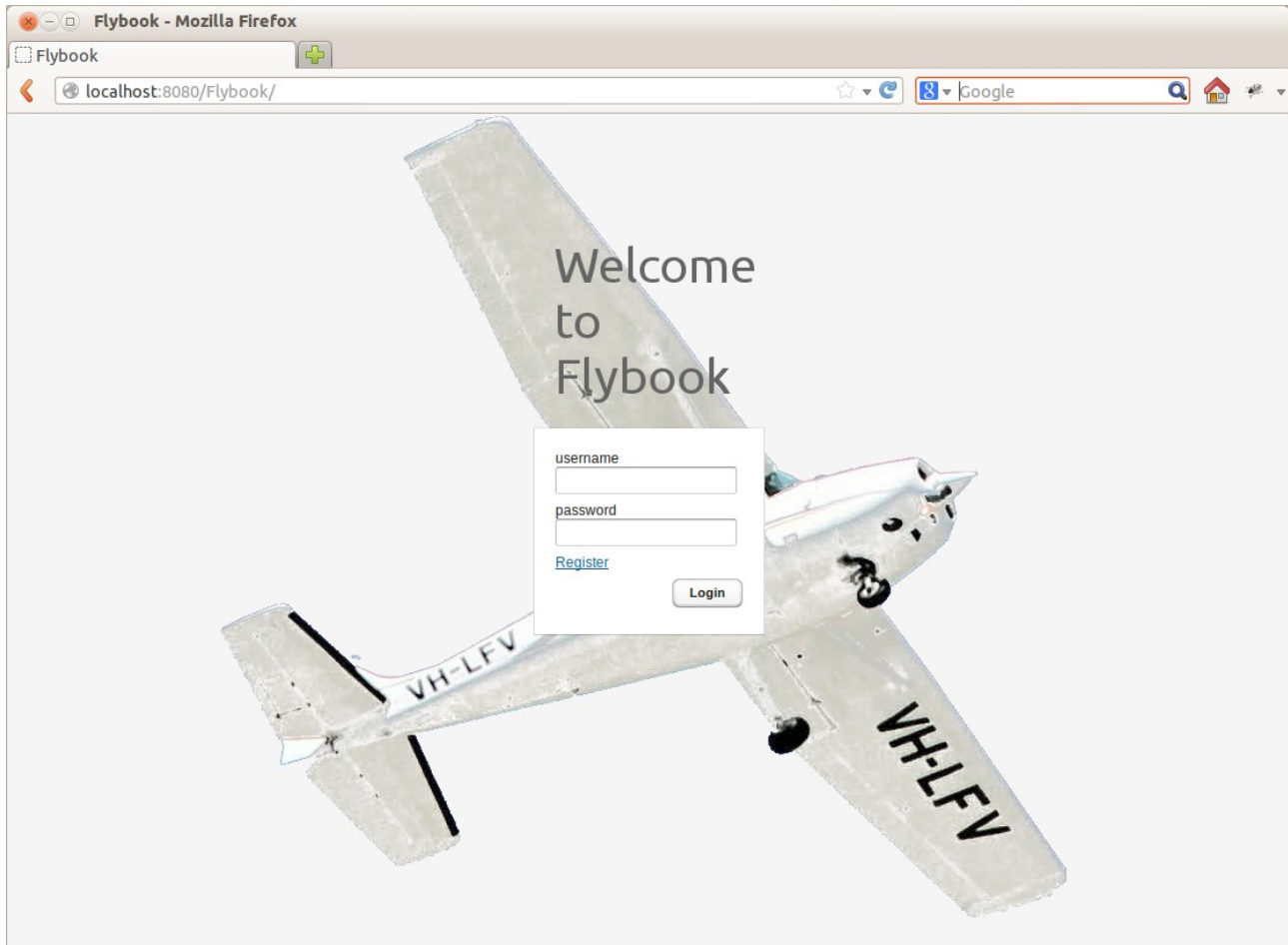
Owner of an aircraft must register the basic information like registration number, make and model of the aircraft, owner's address and few other things. Aircraft information can be searched and read by Flybook users.

Flybook application use International Civil Aviation Organization's (ICAO) airport coding system and its database for airports as a basic airport database. Airport information can be read inside application and to visualize individual flights user can see with google maps the flight route from departure airport (city) to landing airport (city).

As Flybook application is in experimental level, several details are still under consideration whether those are needed or not. Basically with the present version all the necessary information and actions can be done. Major decision will be preventing to delete flight information and aircrafts. By this way logbook would be basic database to look back pilot's and aircraft's flight history from several years, if the logbook will be used permanently.

2. REGISTRATION AND LOGIN

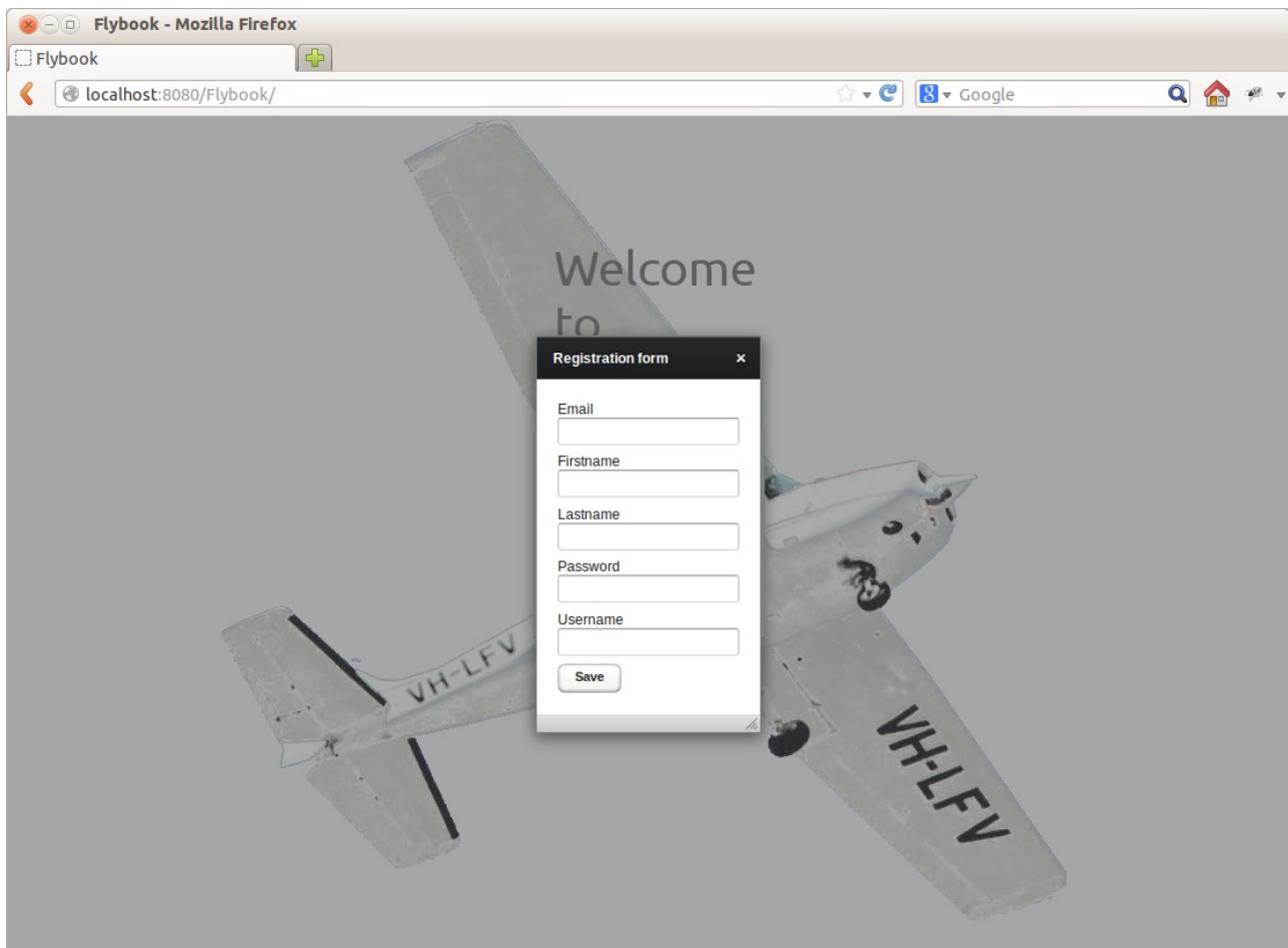
2.1 Login



Picture 1. Login view

Flybook application starts with login view (picture 1) and if user is here for the first time the register-link will be used for doing the registration of new user.

2.2. Registration



Picture 2. Registration form

When pilot (user) for the first time enter to Flybook application the normal login view is shown and by clicking the the registration in login view, user will see the registration form (picture 2) and fill it.

2.3 User information

At this point the user information is quite simple. Only email, firstname, lastname, password and username are given. For given information there is no particular restrictions.

3. FLIGHTS INFORMATION

3.1 General

Flights view is the main view in Flybook application. In flights view table data can be scrolled and when highlighted a row it will be shown in the rightside view, where information can be updated. Flight view is made as tablesheet, so also Airports view and Aircraft view will be opened here.

3.2 Adding new flight

New Flight

Username

andven

Date Added

7.3.2013 01:59:56

Flight Type

Commercial

Aircraft

REG123

Departure

ICAO

LFPG

Country

France

City

Paris

Airport

Charles De Gaulle

Time

7.3.2013 12:00

Landing

ICAO

KJRB

Country

United States

City

New York

Airport

Wall Street Heliport

Time

7.3.2013 21:35

On-Block Time

0

Off-Block Time

0

IFR Time

0

Notes

Flight went well

Flight Time (HH:MM:SS)

9:35:00

Google

North Atlantic Ocean

United Kingdom

France

Spain

Map type

Terrain

Close

Create

Picture 3. Adding new flight

When selecting "Add" button in flight view, new window will open and adding a new flight can be done (picture 3). This view also shows the flight route in google maps.

3.3 Searching flights

Flybook

Settings

Flights

Airports

Aircrafts

Filter By

Pilot

jkv

Date From

1.1.1970 02:00

Date To

17.12.2029 02:00

Flight Type

All

PILOT

DATE

DEPARTURE AIRPORT

DEPARTURE TIME

LANDING AIRPORT

LANDING TIME

FLIGHT TIME

AIRCRAFT

jkv

2013-03-07 19:02

Stockmar Airport

2013-03-07 19:02

Key Largo

2013-03-07 19:02

0:00

REG123

Username

jkv

Date Added

7.3.2013 19:02:24

Flight Type

Hobby

Aircraft

REG123

Departure

ICAO

20GA

Country

United States

City

Villa Rica

Airport

Stockmar Airport

Time

7.3.2013 19:02

Landing

ICAO

07FA

Country

United States

City

Ocean Reef Club Airport

Airport

Key Largo

Time

7.3.2013 19:02

On-Block Time

0

Off-Block Time

0

IFR Time

0

Notes

Flight Time (HH:MM:SS)

0:00:00

Map

Map data ©2013 Google, INEGI

Map type

Terrain

Apply

Reset

Picture 4. Flights view and searching flights

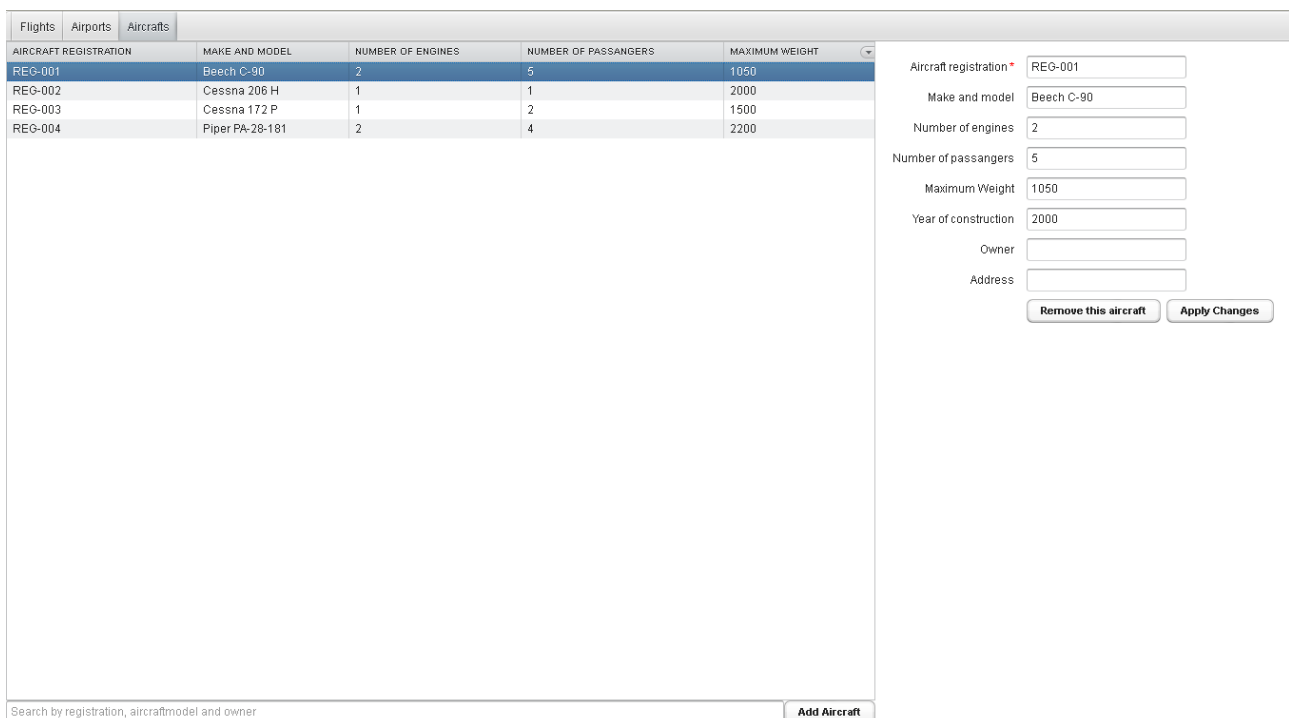
Searching flights can be done by pilot, dates and flight type. Date search can be done from particular date to another date. When selecting a row, it will be shown in rightside view.

4. AIRCRAFTS INFORMATION

4.1 General use

Aircraft information is basically background data, but it is necessary, as this application is about flying aircrafts. And of course the basic aircraft data is important itself.

4.2 Aircraft information



The screenshot shows a web application interface for managing aircraft. It features a tabbed navigation bar with 'Flights', 'Airports', and 'Aircrafts'. The 'Aircrafts' tab is active, displaying a table of aircraft data. The table has five columns: 'AIRCRAFT REGISTRATION', 'MAKE AND MODEL', 'NUMBER OF ENGINES', 'NUMBER OF PASSENGERS', and 'MAXIMUM WEIGHT'. The first row is highlighted in blue. To the right of the table is a form for editing or adding aircraft, with fields for 'Aircraft registration', 'Make and model', 'Number of engines', 'Number of passengers', 'Maximum Weight', 'Year of construction', 'Owner', and 'Address'. At the bottom of the form are two buttons: 'Remove this aircraft' and 'Apply Changes'. At the bottom of the table is a search bar with the text 'Search by registration, aircraftmodel and owner' and an 'Add Aircraft' button.

AIRCRAFT REGISTRATION	MAKE AND MODEL	NUMBER OF ENGINES	NUMBER OF PASSENGERS	MAXIMUM WEIGHT
REG-001	Beech C-90	2	5	1050
REG-002	Cessna 206 H	1	1	2000
REG-003	Cessna 172 P	1	2	1500
REG-004	Piper PA-28-181	2	4	2200

Aircraft registration: REG-001
 Make and model: Beech C-90
 Number of engines: 2
 Number of passengers: 5
 Maximum Weight: 1050
 Year of construction: 2000
 Owner:
 Address:
 Remove this aircraft Apply Changes

Search by registration, aircraftmodel and owner Add Aircraft

Picture 5. Aircraft view

Aircraft view (picture 5) is a splitted window. On the leftside is the main view, where all the aircraft information is given and can scrolled down. Aircraft registration number is id for this data. At the bottom of the leftside window open word/number search can be done by registration number, aircraft make/model name and owner's name. Also adding a new aircraft will be started at bottom from button "Add Aircraft"

The rightside window will open when adding is started or some aircraft is picked (highlighted row) for updating. New data is given and "Apply changes" button will add a new aircraft or change data of existing aircraft. Button "Remove This Aircraft" will permanently move that particular aircraft from database.

Airport view (picture 6) shows all the information that is filed in ICAO database. The official airport ICAO code is used as id for this data. Airports data can be searched by country and city, and this view can be scrolled. Because data is formed from ICAO database, there is no updating nor adding nor removing options available.

6. SPECIAL MATTERS TO CONCERN

6.1 General

Flybook application uses SQL database, to be exact SQLite database. It has 4 tables; Users, Aircrafts, Airports and Flights.

6.2 About Flybook Application

Flybook application has been made in Turku University as group assignment for Vaadin course. Main purpose was to learn how to use Vaadin tools as a web application development framework.

Because of this most of time in groupwork has been spent learning what kind of tools there is, what can done with them and how to get them working together. All this of course has been connected to what group members know about java language beforehand.

If the odds would have been better and more time spent on application itself, most likely there would be more functionality and details.

Different Flybook application parts has done by as following.

Mats Rauhala: Repository management, LoginView, Authentication

Esa Halsti: LoginView, RegisterView, Menu, User Settings

Markku Liljeroos: AircraftView, User Guide

Janne Virtanen: FlightsView, AirportsView