



Satisfly Oriental

-----Version 5.0-----

User Manual

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Contents

I. Introduction	- 4 -
II. Instructions	- 4 -
2.1 Set up.....	- 5 -
2.1.1 Environment Requirements	- 5 -
2.1.2 How to use.....	- 5 -
2.1.3 Hints.....	- 6 -
2.2 General instructions	- 7 -
2.3 Welcome page	- 9 -
2.4 Login	- 10 -
2.4.1 Login with booking number.....	- 10 -
2.4.2 Login with name and ID number or login with ID card	- 10 -
2.5 Choose a flight.....	- 11 -
2.6 Choose your seat.....	- 13 -
2.7 Choose your meal.....	- 14 -
2.8 Confirm and pay	- 15 -
2.8.1 Confirm	- 15 -
2.8.2 Pay	- 16 -
2.9 Final page	- 17 -
2.10 Get boarding pass and ticket	- 18 -
III. Configurations.....	- 19 -
3.1 Set up.....	- 19 -
3.2 General settings	- 20 -
3.2.1 Language.....	- 20 -
3.2.2 ID card drive.....	- 20 -
3.3 Airport settings.....	- 20 -
3.3.1 Airport name.....	- 20 -
3.3.2 Check-in Leading time function	- 21 -
3.4 Timer settings.....	- 21 -
3.4.1 Check-in timer	- 21 -
3.4.2 Idle timer	- 22 -

3.5 Printer settings	- 22 -
3.6 Appearance settings.....	- 23 -
3.6.1 Theme	- 23 -
3.6.2 Dark mode	- 23 -
3.6.3 Animation speed.....	- 23 -
IV. Backend system instructions	- 24 -
4.1 Administrator Login.....	- 24 -
4.2 Information retrieval	- 24 -
V. Appendix.....	- 25 -
5.1 Theme Display	- 25 -
5.2 Easter eggs	- 27 -

I. Introduction

Satisflight is a smart flight check-in software system developed by Group 111 of Software Engineering course. Featuring a kiosk software which offers passengers self-service check-in, so they can choose seats and print boarding passes in no time. The software is equipped with a back-end management system that enables airport and airlines staffs to view check-in status and get better prepared for passengers' boarding. The main features of *Satisflight Oriental*, the 5th release of the project are beautiful full screen interface, smooth system animation and highly customizable configurations.

This manual is designed to provide users and administrators with a better understanding of the operations of *Satisflight Oriental*. If you encounter any issues during use, please visit our [Github Repo](#) for further support.

II. Instructions

This section will guide you through how to get started with our products and provide a detailed explanation of each page's features so that you can have a complete experience.

2.1 Set up

2.1.1 Environment Requirements

	Minimal	Recommended
Operating System	Ubuntu 19/macOS 12/Windows 7	Windows 10
Processor	Intel(R) Core(TM) i3-530	Intel(R) Core(TM) i5-9300
RAM	1GB	4GB
Storage	128MB	32GB
Runtime Environment	Java 10	Java 10

2.1.2 How to use

Windows

1. To use kiosk software, run:

```
sbin\start-kiosk.bat
```

2. To use back-end system, run:

```
sbin\start-backend.bat
```

Linux

1. To use kiosk software, run:

```
cd sbin
```

```
chmod 777 start-kiosk.sh
```

```
./start-kiosk.sh
```

2. To use back-end system, run:

```
cd sbin
```

```
chmod 777 start-backend.sh
```

```
./start-backend.sh
```

2.1.3 Hints

User Configuration

Since *release version 2.0: Xichang*, we have enabled user configuration, so that users can check and modify some software settings.

To edit configuration files, go to **conf** directory and open **config.yaml** with your text editor.

For detailed usage, vide [3.1 Set up](#).

External Equipment as Authentication

Satisflight Oriental makes use of external equipment as the authentication method. It requires scanning the ID document when confirming check-in and also uses it as an alternative way to retrieve flights.

A USB drive with passenger identification information plays the role of a de facto identification document during these operations. In other words, when you need to use an ID document, insert a USB flash disk that contains a passenger-information-populated json file. (Copying the file into your computer's hard drive is equivalent.)

For detailed usage, vide [3.2.2 ID card drive](#).

Database Reset

Now that our early-version databases are limit in size, you may find all flights already checked-in. To continue using the software, resetting the database may be necessary.

To reset the databases to initial state, for Windows run:

```
sbin\reset-database.bat
```

or, for Linux:

```
cd sbin
```

```
chmod 777 reset-database.sh
```

```
./reset-database.sh
```

2.2 General instructions

Since Satisflight Oriental uses a full-screen layout, we introduced special global operations.

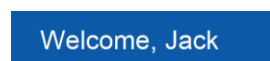
At the top of the screen



Left part is the welcome message. If there are no users using the program, it will display the welcome message of the airport.



Your name is retrieved from our json form database and displayed on the screen when you have logged in.



The middle section is the current time, which you can refer to and better arrange your trip.

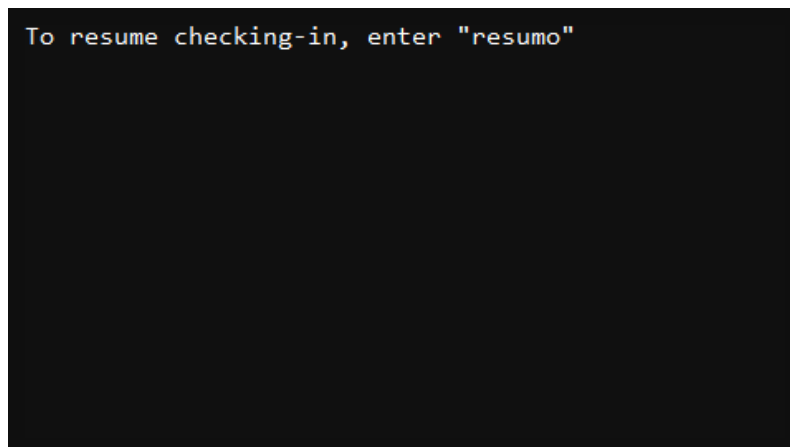
The number on the right **106** is the number of seconds you have left to operate. When the operation time returns to zero, the system will force you to return to the welcome page

The icon  on the right is used to return to the welcome page.

You can cancel all your operations and return to the welcome page by clicking this button on any page before check-in is completed.

***For system administrator (airport stuff) only**

On any screen, press ALT +  to call out the console.



Since our system doesn't have a regular exit button, which is how the entire program should exit, enter "resumo" in the console to close the console and continue running the program, and "exeo" to exit the system.






At the left part of the screen

This component shows the entire check-in process, with the blue icon indicating the check-in phase you are currently in.

At the bottom of the screen



Left icon  is used to return to the front page. (Because of the logical design, on some pages you will not be allowed to return to the previous page, so the icon  will not appear. Instead, you can use this icon  to return to the welcome screen)

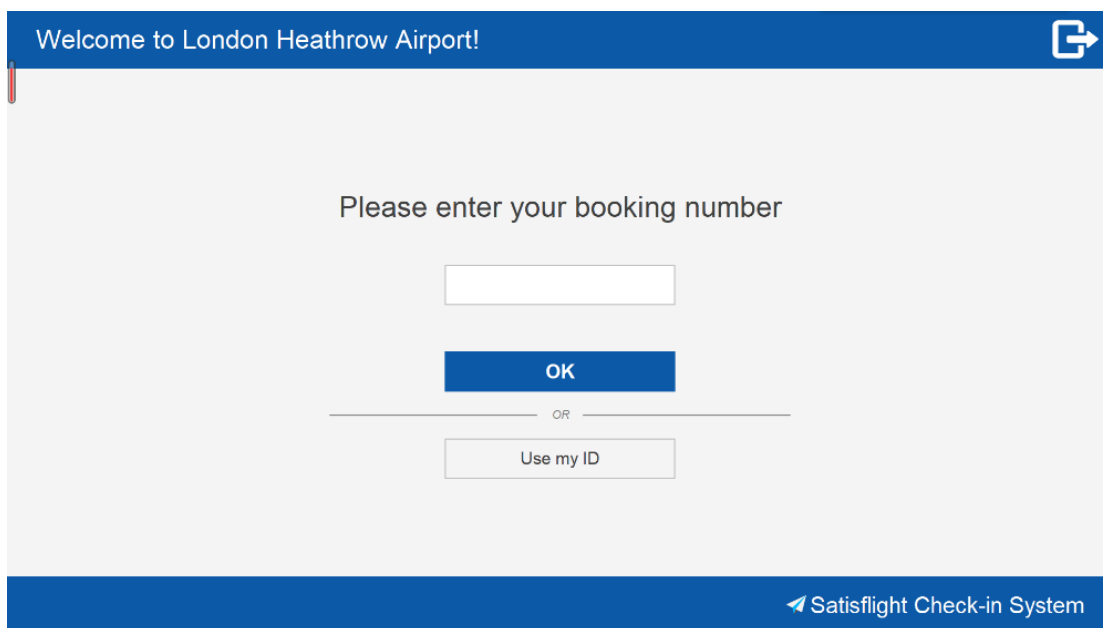
2.3 Welcome page



This is a default "lock screen" page simply displayed the welcome message of the airport and the current time. Click anywhere to unlock the screen and go to next page.

2.4 Login

2.4.1 Login with booking number



Welcome to London Heathrow Airport!

Please enter your booking number

OK

OR

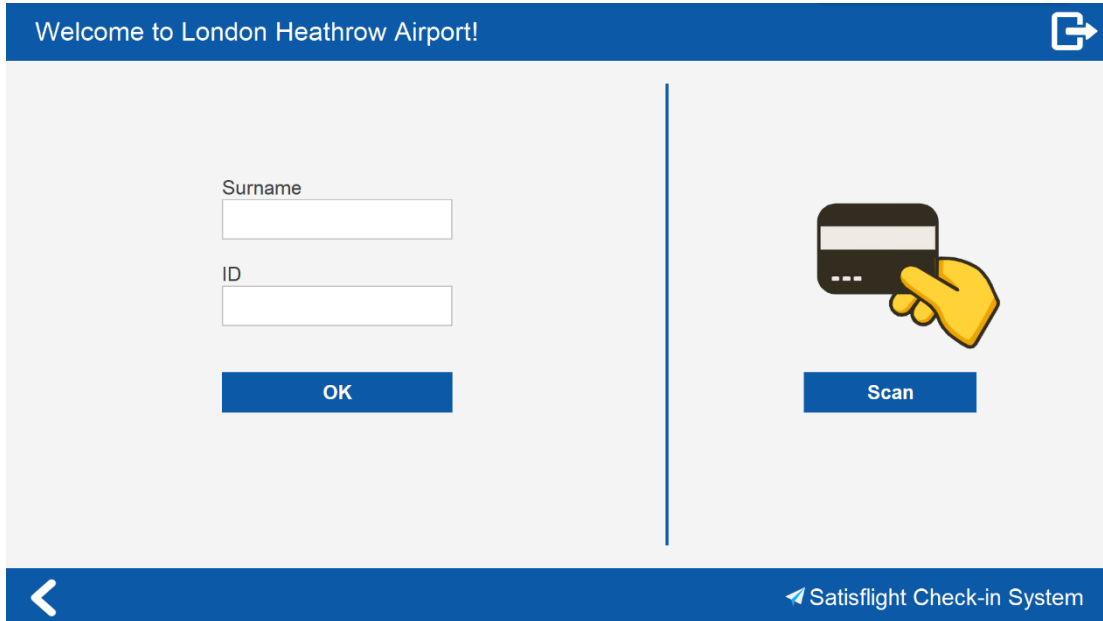
Use my ID

Satisflight Check-in System

At this page, you can enter your booking number and press "OK" button to login. If you don't remember the booking number, you can press "Use my ID" to login with ID number or ID card.

2.4.2 Login with name and ID number or login with ID card

The button "Use my ID" will lead to following page.



You can enter your surname and ID number at the left part to log in.


Or you can log in by placing your ID card in the identification area and clicking the "Scan" button to read the identity information. (Details of using USB drive as ID card is at **External Equipment as Authentication** in [2.1.3 Hints](#))


2.5 Choose a flight


After you log in successfully, the system will retrieve the flight information bound with your identity information and display it on the page. You need to click the flight card that you want to check in for further operations.

Welcome, Jack
2022/05/30 01:34:23
117


choose a flight


choose your seat


choose your meal


confirm and pay

bn0001

2022-04-20
08:00
>
11:00
London T1
Milan T2

2022-04-20
13:00
> +1day >
00:00
Milan T2
Vancouver T1


bn0002


2022-04-21
14:00
> +2days >
01:00
Vancouver T1
Stuttgart T2


Satisflight Check-in System


If certain flights have already checked in, their flight information cards will go grey and can no longer be clicked.

Welcome, Jack
2022/05/30 01:35:00
117


choose a flight


choose your seat


choose your meal


confirm and pay

bn0001

2022-04-20
08:00
>
11:00
London T1
Milan T2
checked-in

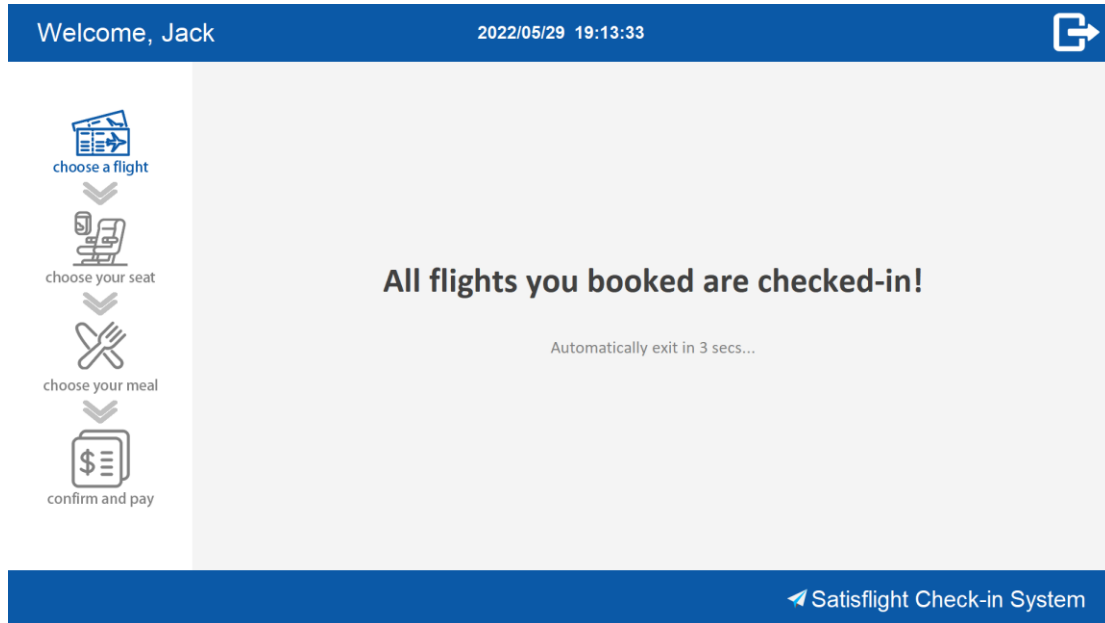
2022-04-20
13:00
> +1day >
00:00
Milan T2
Vancouver T1

bn0002

2022-04-21
14:00
> +2days >
01:00
Vancouver T1
Stuttgart T2

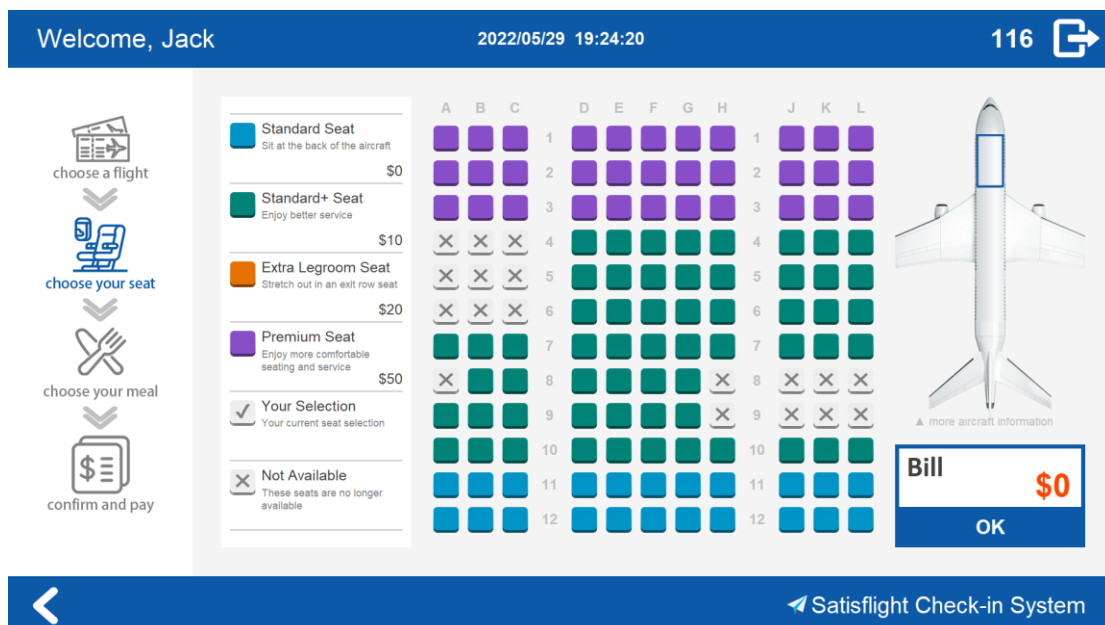
Satisflight Check-in System

In particular, if all the flights you booked have been checked in, the flight selection screen will prompt you and automatically return to the welcome page after three seconds.




2.6 Choose your seat


After you have selected a flight, you need to select a seat. Seat details and prices are in the description bar on the left.





Drag the slider on the aircraft icon on the right to select seats in different areas.

Welcome, Jack
2022/05/29 19:24:32
104


choose a flight


choose your seat


choose your meal


confirm and pay

☒ **Standard Seat**
Sit at the back of the aircraft
\$0

☒ **Standard+ Seat**
Enjoy better service
\$10

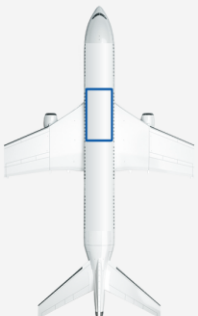
☒ **Extra Legroom Seat**
Stretch out in an exit row seat
\$20

☒ **Premium Seat**
Enjoy more comfortable seating and service
\$50

☒ **Your Selection**
Your current seat selection

☐ **Not Available**
These seats are no longer available

A	B	C	D	E	F	G	H	J	K	L
			11					11		
			12					12		
			13			X	X	13	X	X
			14			X	X	14	X	X
			15			X	X	15	X	X
			16					16		
			17			X	X	17	X	X
			18					18		
			19					19		
			20					20		
			21					21		
			22					22		



more aircraft information


Bill \$0
OK


Satisflight Check-in System


At the same time, you can click the button [more aircraft information](#) under the aircraft icon to get more information about the aircraft.

Welcome, Jack
2022/05/30 01:47:52
27


choose a flight


choose your seat


choose your meal


confirm and pay

☒ **Standard Seat**
Sit at the back of the aircraft
\$0

☒ **Standard+ Seat**
Enjoy better service
\$10


☒ **Extra Legroom Seat**
Stretch out in an exit row seat
\$20

☒ **Premium Seat**
Enjoy more comfortable seating and service
\$50

☒ **Your Selection**
Your current seat selection

☐ **Not Available**
These seats are no longer available

A	B	C	D	E	F	G	H	J	K	L
			1					1		
			2					2		
			3					3		
X	X	X	4					4		
X	X	X	5					5		
X	X	X	6					6		
			7					7		
X			8					8	X	X
			9					9	X	X
			10					10		
			11					11		
			12					12		


hide aircraft information

Airline
LUFTHANSA

Plane model
Boeing 747-8

Capacity
462

Plane age
7

Backrest Angle
105°-115°

Bill \$10
OK

Satisflight Check-in System

2.7 Choose your meal

After making your seat selection, you need to make meal selection. You have to choose one of the three main meals, and you can also choose an extra meal from the menu on the right for an extra fee.



It should be noted that the bill in the lower right corner includes the extra charge for previous seat selection (if you have chosen a seat that requires extra charge)



2.8 Confirm and pay


2.8.1 Confirm


After clicking the "OK" button on the Meal selection page, you will be brought to the confirmation page. The picture of your boarding pass at

the top shows all the information about your check-in, and the bill below shows details of any additional charges you may have incurred during the check-in process.


Welcome, Jack

2022/05/29 20:37:27


53 




choose a flight



choose your seat



choose your meal



confirm and pay

BOARDING PASS

Vancouver → **Stuttgart**

from to

LH2345 **1**

Flight Number Terminal

07:30 **2F**

Boarding Time Gate

6E

Seat

Jack

Passenger name

2022-04-21

Date

from **Vancouver**

to **Stuttgart**

14:00

01:00

Class

Standard+ Seat

SEAT

6E

Standard+ Seat \$10


MEAL

Normal

Baguette \$2

Spanish ham \$5

Rice \$5



Scan ID to continue

Total: \$22

Confirm

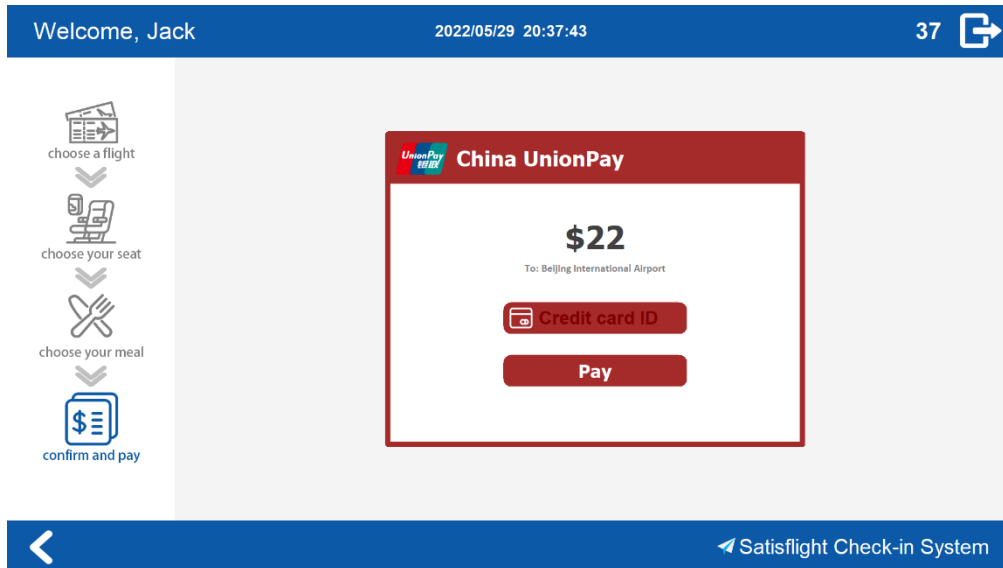
<

Satisflight Check-in System

After confirming the information, you need to place your ID card in the identification area and click the "confirm" button. If there is an extra charge on your bill, i.e., the bill is not 0, you will go to the pay page. If you do not select any additional items, you will go directly to the final page.

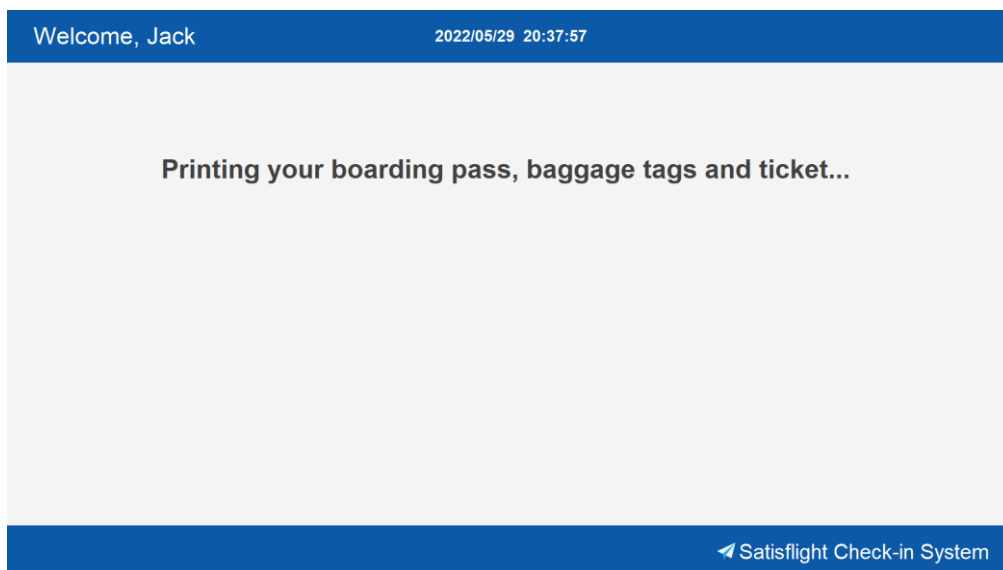
2.8.2 Pay

Input your credit card number and click "pay", the bank will confirm the bill, after payment confirmation, you will go to the final page.



2.9 Final page

It will take a few seconds to print the boarding pass, ticket, and baggage tag when final page is entered.




When the printing is complete, a QR code will pop up. Scanning the QR code takes you to the website of your airline for more information. From this screen, you can choose to click "Continue check-in" to return to the flight selection screen for other flights or click "Exit" to return to the

welcome page.

Welcome, Jack
2022/05/29 20:38:03

Have a good trip!

Get more information on your airline website




Continue check-in
Exit

Satisflight Check-in System

2.10 Get boarding pass and ticket

Open the folder "printer-output" and you will get your boarding pass, ticket and baggage tags.

BOARDING PASS		LUFTHANSA		LUFTHANSA	
Vancouver from	 Stuttgart to	LH2345 Flight Number	1 Terminal	Jack Passenger name	
Jack Passenger name		07:30 Boarding Time	2F Gate	2022-04-21 Date	
Standard+ Seat Class		6E Seat		from Vancouver 14:00	
				to Stuttgart 01:00	
				6E Seat	

Mr / Ms
Jack
This is 1 / 1 of your baggage

Mr / Ms
Jack
Flight ID
LH2345
Airline
LUFTHANSA
Departure
Vancouver T1
Arrival
Stuttgart T2

III. Configurations

***For system administrator (airport stuff) only**

One of the key features of Satisflight Oriental is its highly definable configuration files, which allow the system to be used in a wide range of locations with only a few parameter changes. This part explains that the system can meet the needs of different airports after simple configuration.

3.1 Set up

If you find you that you don't have a **conf** directory, **config.yaml** or **theme.json**, simply run the main program by using instructions in [2.1.2](#) and then you will have the **conf** directory and all configuration files.

Do follow the format provided by existing entries. In *Satisflight Oriental*, we added a property check for config files. If any property is incorrectly configured, the program will not start and will report a configuration error. In particular, if the theme is incorrectly formatted, the

program defaults to Cobalt and Onyx themes.

3.2 General settings

3.2.1 Language

```
# Supported language: English, Chinese (partial)
language: English
```

You can define the language of the system by editing this property. For *Satisflight Oriental*, multilingual support is not perfect, but it is reserved in the config file for later iterations.

3.2.2 ID card drive

```
# USB drive that holds ID document
# Recommended: E://, F://, G:// (Windows); /volumes/DRIVE NAME/ (Mac OS)
idCardDrive: G://
```

The default drive name is "F", but you can choose whatever you like by editing the configuration file. A sample passenger ID document file is provided as **ID info.json** under the software's home directory, alongside JAR files. Copy them into your USB flash disk, or manually view the database and use other identification.

3.3 Airport settings

3.3.1 Airport name

```
# You can set the airport name here
airportName: London Heathrow Airport
```

This property determines the name of the airport that appears in places including the welcome message.

Also, the cover image at the welcome page can be replaced by updating a new cover.jpg file with 19:6 1920*1080 standard.

3.3.2 Check-in Leading time function

```
# Enable/disable the check-in leading time function
enableCheckInLeadingTime: false
# Check-in starts ... (hours) before departure
startCheckInLeadingTime: 24
# Check-in stops ... (minutes) before departure
stopCheckInLeadingTime: 30
```

The feature allows check-in only for flights that depart within the next 24 hours and are more than 30 minutes from now. You can enable or disable this function. Also, you can modify the start check-in leading time and stop check-in leading time.

3.4 Timer settings

3.4.1 Check-in timer

```
# Enable/disable check-in timer
checkinTimer: true
# Set the limit time (seconds) for check-in timer
checkinTimeLimit: 120
```

These properties determines if the global timer, which is the countdown number in the upper right corner is activated. You can also set the limit time for the timer.

3.4.2 Idle timer

```
# Enable/disable idle timer
idleTimer: true
```

Idle timer is widely used in all auto-exit functions. Enable or disable the idle timer is equivalent to enable or disable auto-exit functions.

3.5 Printer settings

```
# Enable/disable image output for printer.
imagePrinter: true
```

We set 2 forms of printer outputs, the image version has already been shown in [2.10 Get boarding pass and ticket](#). And the txt form is as follows:

LUFTHANSA			
Name Jack		Flight/Date LH2345 2022-04-21	
From Vancouver T1		To Stuttgart T2	
Gate 2F	Boarding Time 07:30	Seat No. Standard+ Seat	
HAVE A GOOD TRIP			

```
Mr / Ms
Jack

This is 1 / 1 of your baggage
```

```
Mr / Ms
Jack

Flight ID
LH2345

Airline
LUFTHANSA

Departure
Vancouver T1

Arrival
Stuttgart T2
```

3.6 Appearance settings

3.6.1 Theme

```
# Select a theme from the theme library  
theme: Cobalt
```

Satisflight Oriental comes with 8 built-in theme colors. You can modify the theme parameters or add new themes in [theme.json](#).

3.6.2 Dark mode

```
# Select the dark theme from the theme library  
darkTheme: Onyx  
# Enable/disable auto dark theme  
enableAutoDarkTheme: false
```

First, you need to select a theme color for the night mode. After that, if you choose to enable automatic night mode switch, the system will automatically switch to night theme color at 7pm and regular theme color at 5am.

3.6.3 Animation speed

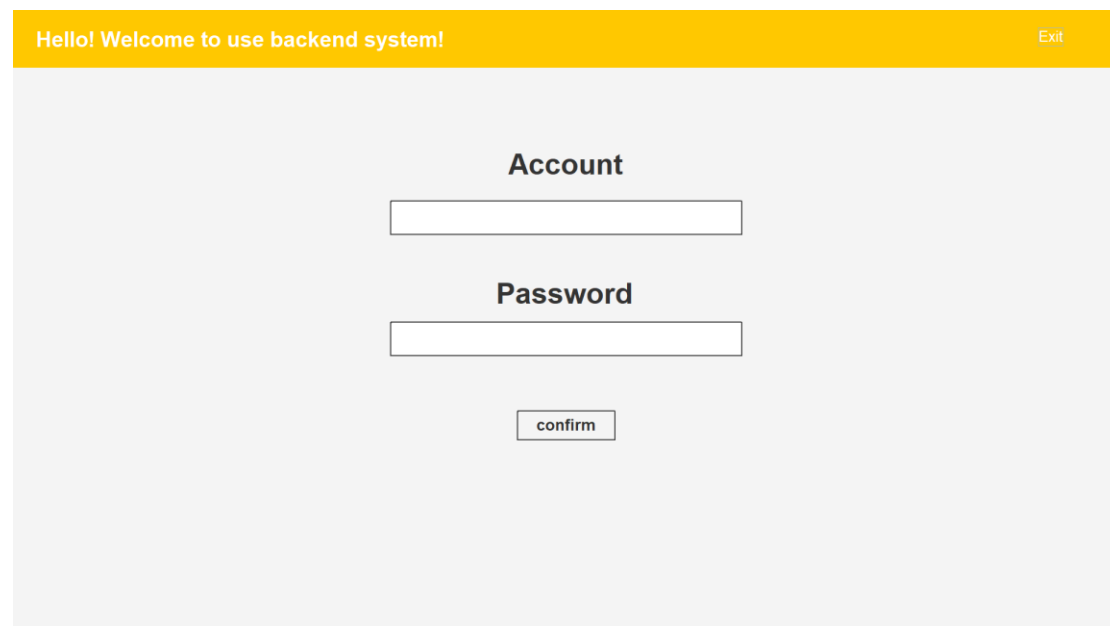
```
# Animation speed (1-5, -1 to disable), default: 3  
animationSpeed: 3
```

We set up smooth animation for various operations. You can adjust the speed of animation by adjusting this property, from 1 to 5 to slow to fast, and -1 to disable animation.

IV. Backend system instructions

4.1 Administrator Login

This is a simple login page, by checking information in the `backend_administrator.csv` in the folder `database`, you can log in as an administrator.



The screenshot shows a web interface for administrator login. At the top, there is a yellow header bar with the text "Hello! Welcome to use backend system!" on the left and an "Exit" link on the right. Below the header, the main content area has a light gray background. In the center, there is a form with two input fields. The first field is labeled "Account" and the second field is labeled "Password". Below these fields is a button labeled "confirm".

4.2 Information retrieval

This page displays the back stage data of all passengers, the back-end system provide 3 ways to retrieve data.

The logic of data arrangement is that unchecked passengers (status 0) will be shown first, and after the passenger has checked in, he/she will be placed at the top of the list of checked in passengers

Welcome, Scout! Exit

BACK

Passenger information

refresh

airline confirm idPassenger confirm idflight confirm

Database Info

idPassenger	surName	idFlight	bookingNum	status	seat	meal	mealPre1	mealPre2	mealPre3	airline
123001	Jack	MU1314	bn0001	0	NULL	NULL	NULL	NULL	NULL	CHINA EAST...
123001	Jack	BA0001	bn0001	0	NULL	NULL	NULL	NULL	NULL	British Airways
123002	Mike	BA0003	bn0003	0	NULL	NULL	NULL	NULL	NULL	British Airways
123842	Shirley	BA3079	bn0004	0	NULL	NULL	NULL	NULL	NULL	British Airways
123671	Ronald	BA3577	bn0005	0	NULL	NULL	NULL	NULL	NULL	British Airways
123027	Charles	BA2485	bn0006	0	NULL	NULL	NULL	NULL	NULL	British Airways
123728	Jose	LH3077	bn0007	0	NULL	NULL	NULL	NULL	NULL	LUFTHANSA
123144	Anderson	LH2345	bn0008	0	NULL	NULL	NULL	NULL	NULL	LUFTHANSA
123196	Moore	LH1365	bn0009	0	NULL	NULL	NULL	NULL	NULL	LUFTHANSA
123870	Perez	LH7718	bn0010	0	NULL	NULL	NULL	NULL	NULL	LUFTHANSA
123333	Robinson	LH2333	bn0011	0	NULL	NULL	NULL	NULL	NULL	LUFTHANSA
123265	Jessica	LH4618	bn0012	0	NULL	NULL	NULL	NULL	NULL	LUFTHANSA
123403	Davis	LH1607	bn0013	0	NULL	NULL	NULL	NULL	NULL	LUFTHANSA
123962	Lewis	MU1314	bn0014	0	NULL	NULL	NULL	NULL	NULL	CHINA EAST...
123588	Jason	MU3241	bn0015	0	NULL	NULL	NULL	NULL	NULL	CHINA EAST...
123001	Jack	LH2345	bn0002	1	6E	Vegetarian	NULL	NULL	NULL	LUFTHANSA
123133	Garfield	BA2448	bn6555	1	17K	Vegetarian	Baguette	NULL	NULL	British Airways
123906	Hank	LH4009	bn8975	1	27G	Halal	Ice-Cream	NULL	NULL	LUFTHANSA
123936	Ignatius	BA2383	bn5674	1	15L	Vegetarian	NULL	Extra	Baguette	British Airways
123714	Frank	LH2670	bn1017	1	20B	Normal	Spanish ham	Baguette	NULL	LUFTHANSA
123680	Franklin	BA7633	bn7743	1	14C	Halal	Chocolate	Hamburger	Kweichow M...	British Airways
123916	David	UA3682	bn3896	1	24B	Halal	NULL	NULL	NULL	UNITED AIRLI...
123487	Cole	MU5672	bn9758	1	5A	Normal	Ice-Cream	NULL	NULL	CHINA EAST...
123586	Austin	UA4766	bn4807	1	30K	Normal	NULL	Cookies	Chocolate	UNITED AIRLI...
123145	Billy	BA8513	bn9997	1	12C	Normal	NULL	NULL	Hamburger	British Airways

V. Appendix

5.1 Theme Display

Cobalt

Welcome to London Heathrow Airport! Exit

Please enter your booking number

OK

OR

Use my ID

Satisfight Check-in System

Onyx

Welcome to London Heathrow Airport! Exit

Please enter your booking number


OK

OR

Use my ID

Satisfight Check-in System

Jungle

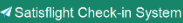
Welcome to London Heathrow Airport! 

Please enter your booking number


OK

OR

Use my ID



Tyrian

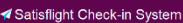
Welcome to London Heathrow Airport! 

Please enter your booking number


OK

OR

Use my ID



Platinum

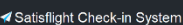
Welcome to London Heathrow Airport! 

Please enter your booking number


OK

OR

Use my ID



Tiber


Welcome to London Heathrow Airport! 

Please enter your booking number

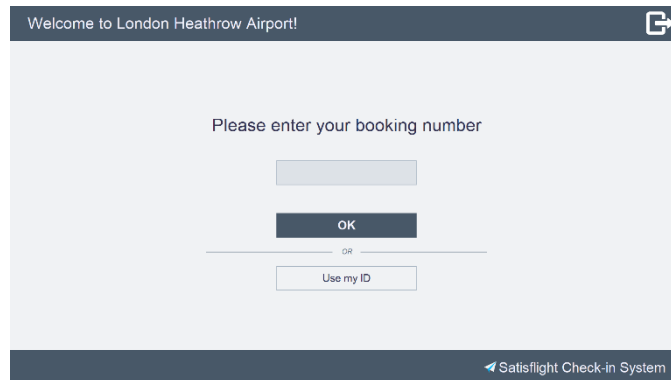
OK


OR

Use my ID



Anchor




Welcome to London Heathrow Airport! 

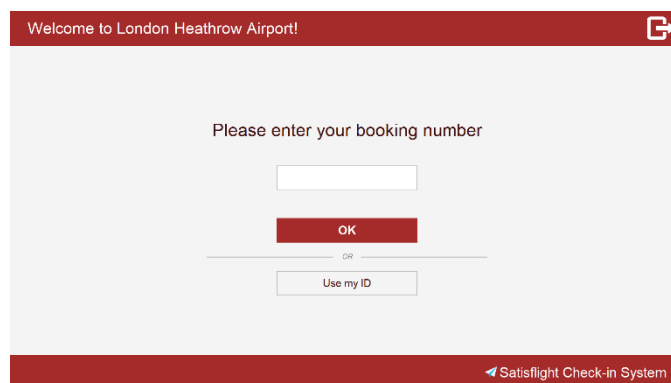
Please enter your booking number


OK

OR

 Satisflight Check-in System

Maroon




Welcome to London Heathrow Airport! 

Please enter your booking number

OK

OR

 Satisflight Check-in System

5.2 Easter eggs



Click the SatisFlight icon five times quickly and an Easter egg pops up with information about the development team

