



Hönnunarskýrsla

Hópur 17

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Inngangur

Nýja flugfélagið NaN-air ætlar að vera með flug á nokkra staði í norður Atlantshafi. Það þarf forrit sem getur bæði haldið utan um flugferðir félagsins og starfsfólkið sem verður í þeim ferðum. Í þessari skýrslu er farið yfir hönnun á slíku forriti og verður hún svo notuð í útfærslu forritsins.

Requirements List

Nr	Krafa/Lýsing	Forgangs röð	Annað
1	Notandi skal geta skráð vinnuferðir og vistað án mönnun	A	Vinnuferð er flugferð frá Íslandi og aftur til Íslands
2	Notandi skal geta mannað vistaðar vinnuferðir	A	
3	Vinnuferð skal hafa amk. tvo flugmenn þar sem einn þeirra skal vera flugstjóri	A	
4	Vinnuferð skal hafa amk. einn flugþjón þar sem einn þeirra skal vera yfirflugþjónn	A	
5	Starfsmenn skulu bara geta farið í eina vinnuferð á hverjum degi		
6	Notandi skal geta skráð upplýsingar um starfsmennn, flugmenn og flugþjóna	A	Nafn, kennitölu, heimilisfang, síma og netfang
7	Notandi skal geta skráð upplýsingar um áfangastað	A	Land, flugvöll, flugtíma, fjarlægð frá Íslandi, nafn tengiliðs og neyðarsímanúmer hans
8	Notandi skal get listað alla starfsmenn, flugmenn og flugþjóna	A	
9	Notandi skal geta listað upplýsingar um ákveðin starfsmann	A	
10	Notandi skal geta breytt upplýsingum um starfsmann	A	En ekki nafni eða kennitölu
11	Notandi skal geta listað alla áfangastaði	A	
12	Notandi skal geta listað allar vinnuferðir á ákveðnum degi og séð ef þær eru fullmannaðar	A	
13	Notandi skal geta listað allar vinnuferðir í ákveðinni viku og sjá ef þær eru fullmannaðar	A	
14	Notandi skal geta listað alla starfsmenn sem eru ekki að vinna ákveðinn dag	A	
15	Notandi skal geta listað alla starfsmenn sem eru að vinna ákveðinn dag og hvert þeir eru að fara	A	
16	Notandi skal geta eytt áfangastað	A	
17	Notandi skal geta eytt starfsmanni	A	
18	Notandi skal geta eytt vinnuferð	A	
19	Notandi skal geta listað allar vinnuferðir	A	
20	Notandi skal geta listað vinnuyfirlit sem sýnir allar vinnuferðir í ákveðinni viku fyrir ákveðinn starfsmann	A	

21	Notandi skal get skráð flugvélar	B	Nafn, tegund, framleiðandi og fjöldi sæta
22	Notandi skal geta eytt flugvélum	B	
23	Notandi skal geta listað allar flugvélar og séð stöðu þeirra	B	Dags. og tíma þegar flugvél er aftur laus ef hún er í notkun. Nafn áfangastaðar ef hún er í notkun. Flugnúmer flugferðar ef hún er í loftinu. Nafn, týpu og sætafjöldi
24	Þegar vinnuferð er skráð skal velja flugvél svo starfsmenn	B	
25	Notandi skal geta skráð flugvélaréttindi í skráningu flugmanns	B	
26	Notandi skal geta listað flugvélar eftir flugvélategund	B	
27	Notandi skal geta listað flugvélar sem eru lausar í ákveðinni viku eða á ákveðinn dag	B	
28	Notandi skal geta listað flugmenn eftir flugréttindum	B	
29	Notandi skal geta fundið flug eftir flugnúmeri	B	
30	Notandi skal geta fundið flugnúmer fyrir flug	B	
31	Notandi skal geta breytt nafni og neyðarsímanúmeri á tengilið sem er skráður fyrir áfangastað	B	
32		B	
33		B	

User Group Analysis

Who

Notandi er einhver starfsmaður sem sér um að skrá flugferðir og annar starfsmaður sem sér um að manna flugferðirnar.

Why

Bókhaldskerfi til að skrá flugferðir og manna þær. Líka til þess að sjá upplýsingar um flugferðir og starfsmenn

What

Tæknilega umhverfið er gott, með góðum búnaði og góðu interneti

Where

Í vinnunni þeirra þar sem aðstaðan er góð og tæknilegur búnaður þeirra er góður

When

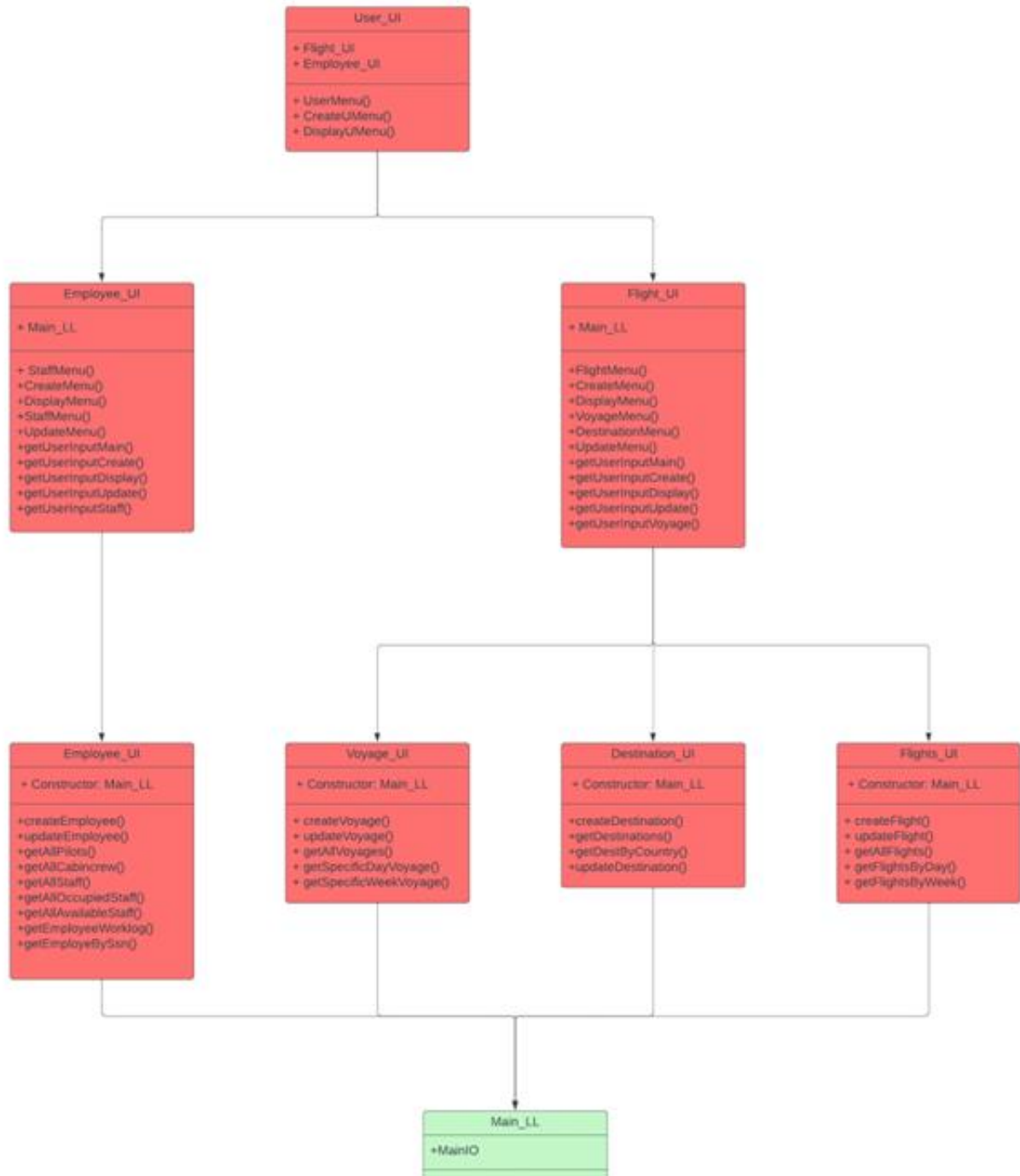
Notað oft yfir daginn til þess að skrá og sjá upplýsingar um flugferðir

Hér fylgir notendahópagreiningataflan fyrir forritið. Forritið er aðallega ætlað þeim sem eru að halda utan um flug og starfsfólk, en í framtíðinni er hægt að bæta við virkni til að leyfa starfsfólki að skoða sína áætlun eins og hún birtist í þessu kerfi.

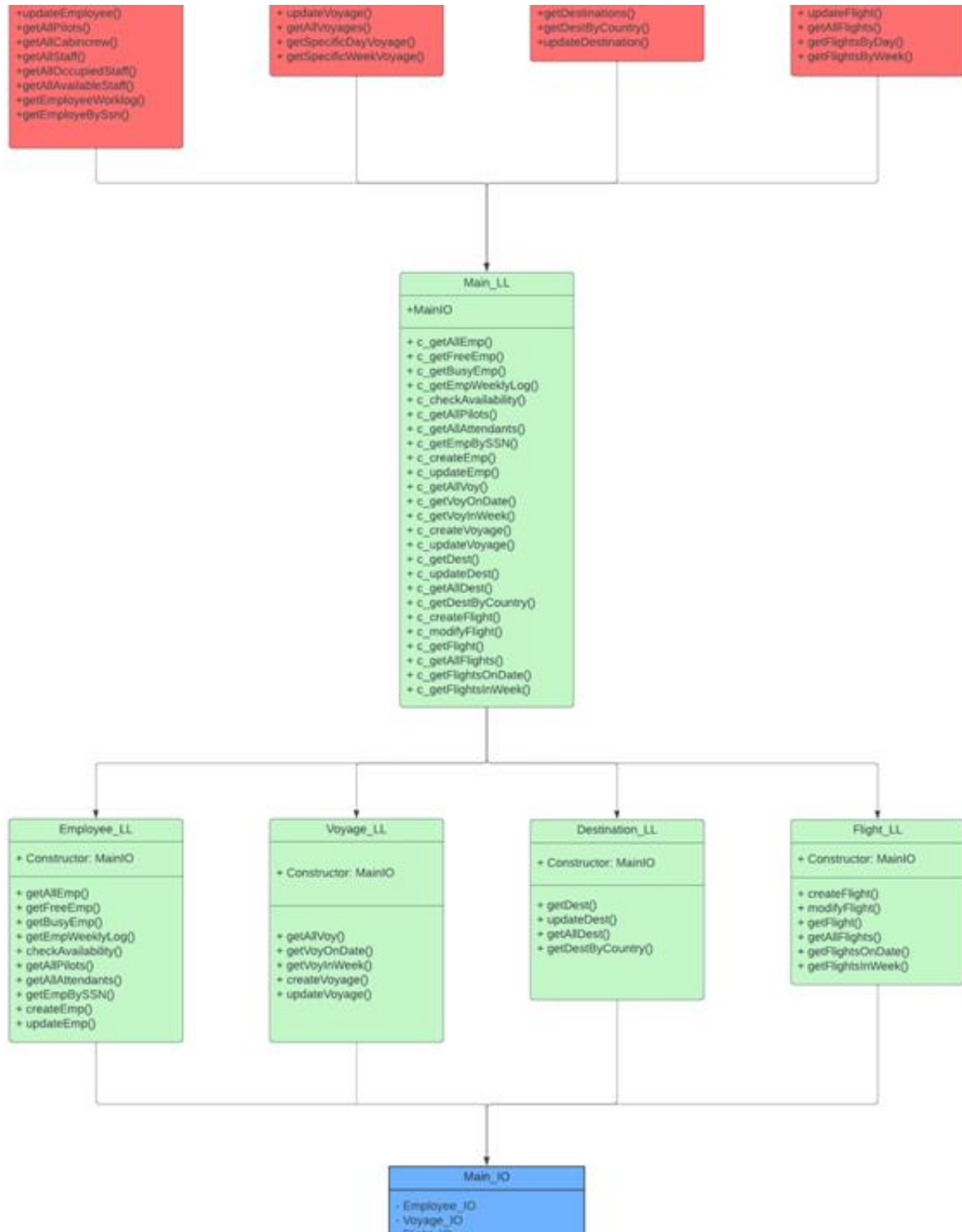
Name of group:		Manager	Flight Staff
Who: background	Age:	Varies	Varies
	Gender:	All	All
	Education:	Graduated from high school	Graduated from high school
	Abilities/Disabilities:	Nothing specific	Nothing Specific
	Computer Skills:	Varies	Varies
	Number:	Handful, at least 2	Possibly a few dozen to start
Why: main goals		Get a clear overview of the airline's flights and staff, and allow management to easily set up and staff flights.	Check their schedule.
What: equipment		Use a computer	Often from a computer, may want to use other devices while on the go.
Where: environment		Generally used from the office, with a decent setup. May be used from a computer at home.	Used either from home or while travelling.
When: frequency of use	How often:	Multiple times a day.	Every few days.
	How long:	30 minutes-1 hour each time	5-10 minutes each time
	Skill level:	Good, since it's used so often.	Low, since it's used rarely.
How: importance		Very Important, primary user group (A req.)	Low priority, not necessarily ready on release. (C req.)

Class Diagram

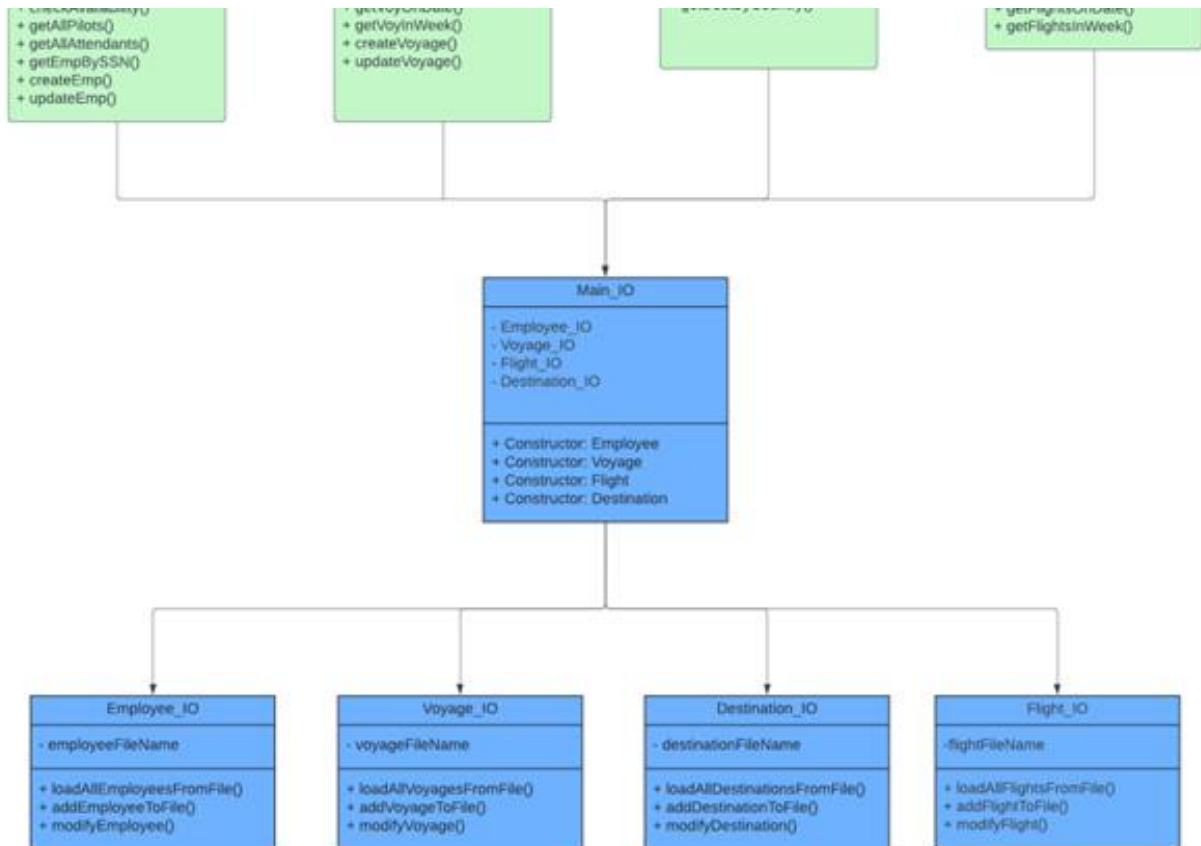
UI



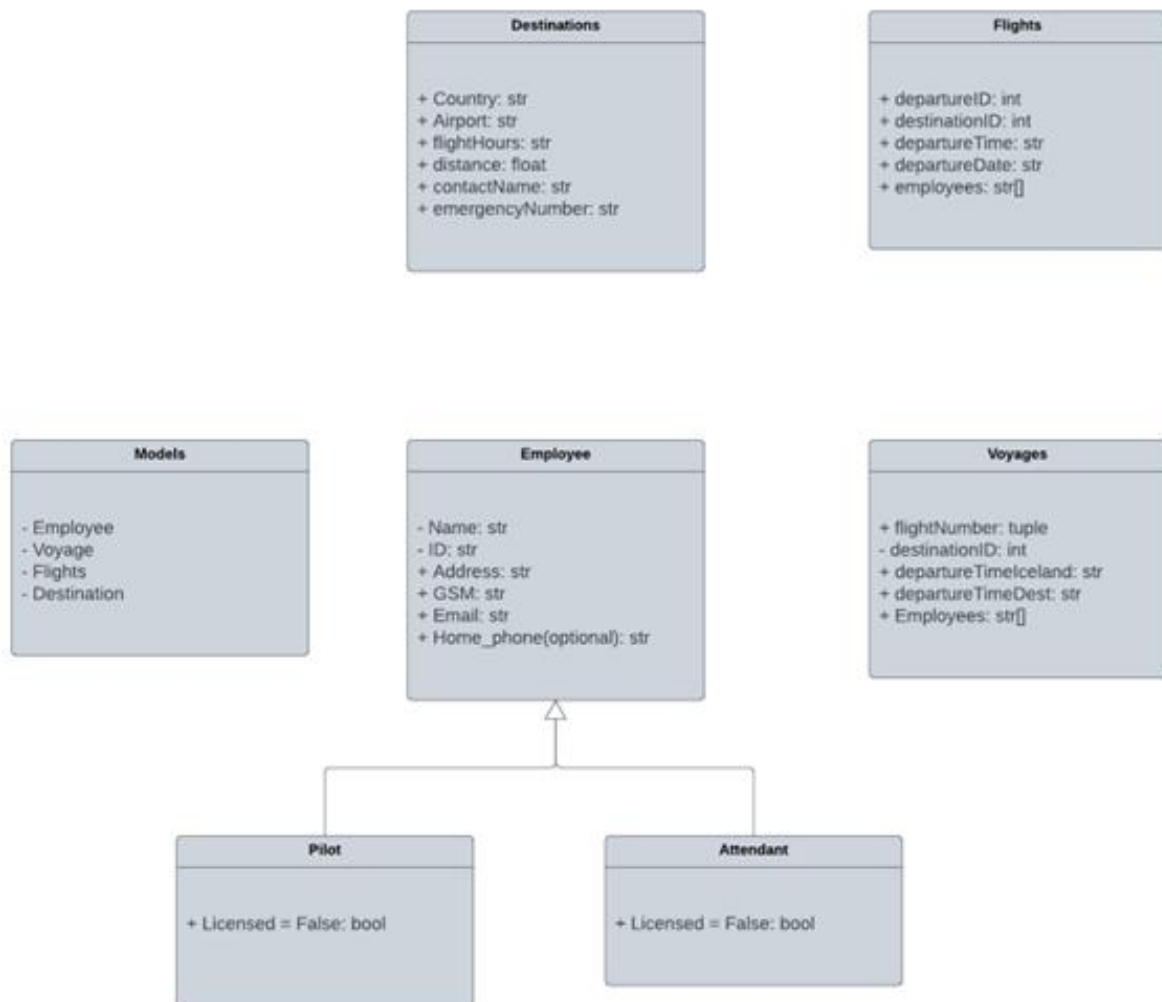
LOGIC



IO



Models



Use Cases

Name	Add staff
Number	1
Priority	A
Precondition	None
Description (Base flow)	Go to Staff >> Add Employee And fill out the empty table which appears. It must contain: Name, ID, Role, Work Dates, Address, Phone, Email and optionally Home phone as well.
Alternative Flow	
Post Condition	New staff member is added to the database
Source (requirements)	6
Actors	Manager
Author	Kristófer
Name	List Employee worklog
Number	7
Priority	A
Precondition	Given employee exists and has worked previously
Description (Base flow)	Go to Staff >> An Employee >> See Worklog
Alternative Flow	No shifts to display
Post Condition	This display's a list of every shift a given employee has worked
Source (requirements)	19
Actors	Manager
Author	Kristófer

Name	See list of pilots
Number	13
Priority	A
Precondition	A pilot must be registered at the company

Description (Base flow)	The user presses the "staff" button and get's a list of all staff in alphabetical order, he then picks "pilots" which filters them out of the list and displays a new one only consisting of pilots
Alternative Flow	User notified if no pilots are registered
Post Condition	The system displays a list of all registered pilots in alphabetical order
Source (requirements)	
Actors	Manager
Author	Sölvi
Name	Show info for a specific staff member
Number	18
Priority	A
Precondition	A staff member must exist
Description (Base flow)	The user presses the "Staff" button then "An Employee" and chooses the employee the want to see information about
Alternative Flow	There are no staff members registered
Post Condition	Information about a specific employee is listed
Source (requirements)	9
Actors	Manager
Author	Torfi
Name	See a list of staff who are free on a given day
Number	22
Priority	A
Precondition	Atleast one staff member must exist
Description (Base flow)	The user presses "calender" and is prompted with a calender, he then presses a day he wishes to review and is then subsequently given a list of information regarding that day including all staff that are either available or unavailable on that given day

Alternative Flow	The user is notified that no staff members are listed
Post Condition	The system displays a list of all staff members that are either available or unavailable on a given day
Source (requirements)	
Actors	Manager
Author	Sölvi
Name	See a list of flight attendants
Number	24
Priority	A
Precondition	There must be atleast one flight attendant registered at the company
Description (Base flow)	The user presses the "staff" button and get's a list of all staff in alphabetical order, he then picks "flight attendants" which filters them out of the list and displays a new one only consisting of flight attendants
Alternative Flow	User notified if no flight attendants are registered
Post Condition	The system displays a list of all registered flight attendants in alphabetical order
Source (requirements)	
Actors	Manager
Author	Sölvi Gunnarsson

Name	Modify Staff
Number	2
Priority	A
Precondition	Staff member exists
Description (Base flow)	Change the contents of the staff member table. Not Name or ID though.
Alternative Flow	
Post Condition	The changed information is saved for the relevant employee

Source (requirements)	10
Actors	Manager
Author	Kristófer
Name	Change employee info
Number	8
Priority	A
Precondition	The employee the user wishes to change must exist
Description (Base flow)	The user presses the "Staff" button then finds the employee he wishes to change and changes it
Alternative Flow	There are no employees to change information about
Post Condition	the specific employess information is changed
Source (requirements)	10
Actors	Manager
Author	Torfi
Name	See a list of staff
Number	14
Priority	A
Precondition	There must be atleast one staff member registered at the company
Description (Base flow)	The user presses the "staff" button and get's a list of all staff in alphabetical order
Alternative Flow	User notified if no staff members are registered
Post Condition	The system displays a list of all registered staff in alphabetical order
Source (requirements)	
Actors	Manager
Author	Sölvi

Name	Delete staff member
Number	19
Priority	A
Precondition	A tleast one staff member must exist
Description (Base flow)	The user presses the "staff" button and get's a list of all employees in alphabetical order, he then chooses "edit list" and gets the option to "delete staff". He then proceeds to choose a staff member he wishes to delete and presses "delete". Now the staff member has been removed from the database
Alternative Flow	User notified if no staff members are listed
Post Condition	The system displays the updated list of staff members
Source (requirements)	
Actors	Manager
Author	Sölvi
Name	Add license to a pilot
Number	23
Priority	C
Precondition	Atleast one pilot must be listed
Description (Base flow)	The user presses the "staff" button and get's a list of all staff in alphabetical order, he then picks "pilots" which filters them out of the list and displays a new one only consisting of pilots
Alternative Flow	Content
Post Condition	Content
Source (requirements)	Content
Actors	Manager
Author	Content

Name	See all currently listed voyages
Number	3
Priority	A
Precondition	There are voyages that exist
Description (Base flow)	The user presses the "Voyages" button then "Flight list"
Alternative Flow	The user is notified that there are no voyages to be listed
Post Condition	A list of all listed voyages is shown. With every flight having a check which shows whether said flight is fully staffed or not.
Source (requirements)	19
Actors	Manager
Author	Torfi
Name	List weekly voyages
Number	9
Priority	A
Precondition	At least one voyage created
Description (Base flow)	Lists all voyages for a given week sorted by time with flight ID and whether it's fully manned
Alternative Flow	No voyages to display
Post Condition	User sees all voyages for a given week and if those flights are manned or not
Source (requirements)	13
Actors	Manager
Author	Kristófer
Name	Create a Voyage
Number	15
Priority	A
Precondition	None
Description (Base flow)	The user presses the "Create Voyage" button. Fills in the cabin crew which must contain two pilots and at least one of them must be a captain. Minimum one lead attendant, optionally there can be more

	attendants as well. No part of the crew may have worked on a different flight on the same day. What destination, and emergency contact for said destination. Time of departure from IS and landing at destination and time of departure from destination and landing at IS.
Alternative Flow	The user presses the "Create Voyage" button. And waits to fill in the flight until later
Post Condition	A new flight is created and listed under flight itinerary with a boolean showing whether it is fully manned or not
Source (requirements)	1,3,4
Actors	Manager
Author	Kristófer
Name	See a list of voyages on a given day
Number	20
Priority	A
Precondition	Atleast one voyage must be listed on the day checked
Description (Base flow)	The user presses "calender" and is prompted with a calender, he then presses a day he wishes to review and is then subsequently given a list of information regarding that day including all voyages that are listed on the day he picked
Alternative Flow	The system displays that no voyages exist on that given day
Post Condition	the system displays a list of all existing voyages on a given day
Source (requirements)	
Actors	Manager
Author	Sölvi

Name	Modify an existing voyage
Number	4
Priority	A
Precondition	A voyage must exist
Description (Base flow)	The user presses the "Voyages" button then "Flights list", finds the voyage he wants to modify and modifies it

Alternative Flow	The user is notified that there are no flights
Post Condition	A flight is modified by staffing it. If its fully staffed, then it's bool becomes True
Source (requirements)	2
Actors	Manager
Author	Kristófer
Name	List daily voyages
Number	10
Priority	A
Precondition	At least one voyage created
Description (Base flow)	Lists all voyages for a given day sorted by time with flight ID and whether it's fully manned
Alternative Flow	No voyages to display
Post Condition	User sees all voyages for a given day and if those flights are manned or not
Source (requirements)	12
Actors	Manager
Author	Kristófer
Name	Add staff to voyage
Number	16
Priority	A
Precondition	Atleast one voyage must exist
Description (Base flow)	The user presses "voyages" and is prompted with a list of all voyages sorted by times/dates of departures. He then clicks on a voyage he wishes to add staff to and is given a list of information about the voyage including staff members registered to that voyage with the option to add a staff member. He clicks "add staff" and is asked to fill out the necessary information for the staff and then clicks "save changes".
Alternative Flow	User notified if no voyages are listed or if the staff member is busy with another voyage or is unavailable during that time period
Post Condition	The system displays an updated list of information about the voyage including the staff members

Source (requirements)	
Actors	Manager
Author	Sölvi
Name	See a list of voyages in a given week
Number	21
Priority	A
Precondition	Atleast one voyage must be listed in the week checked
Description (Base flow)	The user presses "calender" and is prompted with a calender, he then presses a week he wishes to review and is then subsequently given a list of information regarding that day including all voyages that are listed in the week he picked
Alternative Flow	The system displays that no voyages exist in that given week
Post Condition	the system displays a list of all existing voyages in a given week
Source (requirements)	
Actors	Manager
Author	Sölvi

Útlitshönnun

Task 1

Create a Voyage to Nuuk on 12.12.2024-14.12.2024 at 0700 and back at 1600.

```
*
* Welcome,
*
* Select user type:
* -----
* 1.Flight control
* 2.Staffing
*
*
* Enter input:1
*                                     NaN Air HQ
*      _ \ (^) / _
*      |   |   |
*      |___|___|
Select User type(Flight Control)
```

```

[M]enu
[B]ack

Welcome,

Main Flight Menu
-----
1.Voyages
2.Destinations
3.Flights

Enter input:1

=====
NaN Air HQ
=====
select voyages

```

```
*
*                                     [M]enu
*                                     [B]ack
*
* Voyages
* -----
* 1.Create new Voyage
* 2.Flight list
*
*
* Enter input:1
*
*      _\{*\}/_
*      |_|_|_|
* select Create new voyage
```

[illegible]

```
* [M]enu
* [B]ack
*
* Select destination:
* -----
* 1.Nuuk, NGX
* 2.Torshavn, FOX
*
* Enter input:1
*
* _____
```

Select Duration

```
[M]enu  
[B]ack  
  
Please enter departure date from ICE  
-----  
  
  
  
Enter input(DD/MM/YYYY):12/12/2024
```

NaN Air HQ

Enter departure date from ICE

[illegible][illegible]

```
* * * [M]enu  
* * * [B]ack  
  
* Please enter departure time to ICE  
* -----  
*  
*  
*  
*  
* Enter input(####):1600  
*  
* . . . |NaN Air HQ|  
* _\(*) /_ | | | |  
* |_|_|_|_| | | | |  
* Enter departure time to ICE
```

```
*
*                                     [M]enu
*                                     [B]ack
*
* Enter Voyage name
* -----
*
*
*
*
*
*
*
*
*
*
* Enter input: ICE/NUUK/ICE
*
*                                     NaN Air HQ
*
* _____ . . . . .
* | _ { * } _ |   | _ n / _ n / _ | | | |
* | - | - |     | | | |
*
Enter voyage name
```

```
[M]enu  
*  
*  
* Thank you, Voyage saved.  
* -----  
*  
*  
*  
*  
* Enter Input:  
*  
*          . . . .  
*   _\(_*)/_-|      | NaN A!r HQ|  
*   -|-|-|_|_n/_n/_|_|_|_|_|_|  
  
Voyage saved
```

Task 2

Task: Add a destination

```
*
* Welcome,
*
* Select user type:
* -----
* 1.Flight control
* 2.Staffing
*
*
* Enter input:1
*
* _____
```

```
Select User type(Flight Control)
```

```

*                                     [M]enu
* Welcome,                           [B]ack
*
* Main Menu
* -----
* 1.Voyages
* 2.Staff
* 3.Destinations
*
*
* Enter Input:
*
*                                     NaN Air HQ
*
*  _\_(*)/_
*  _|_|_
*  _|_|_
*  _|_|_

```

```
select Destinations
*
*                                     [M]enu
*                                     [B]ack
*
* Destinations
* -----
* 1.Find destinations
* 2.Add destinations
*
*
* Enter input:
*
*                                     NaN Air HQ
*
*      _\_(*)_/_
*     _|_|_/_/_
* select Add destinations
```

```
*
*                                     [M]enu
*                                     [B]ack
*
* Please enter the name of the country
* -----
* Country:
*
*
*
*
* Enter input:
```

[illegible]

```
*                                     [M]enu
*                                     [B]ack
*
* Please enter the duration to the airport
* -----
* Duration to airport:
*
*
*
*
* Enter input:
```

```
*                                     [M]enu
*                                     [B]ack
* Please enter distance from Iceland
* -----
* Distance from Iceland:
*
*
*
*
* Enter input:
```

```
*                                     [M]enu
*                                     [B]ack
* Please enter the name of contact
* -----
* Name of contact:
*
*
*
* Enter input:
```

```
*                                     [M]enu  
*                                     [B]ack  
  
* Please enter the contacts emergency phone number  
* -----  
* Emergency contact phone:  
*  
*  
* Enter input:
```

NaN Air HQ

The diagram shows a 9V battery connected to a potentiometer (variable resistor) and a fixed resistor. The potentiometer's wiper is connected to one terminal of the fixed resistor. The other terminal of the fixed resistor is connected to ground. The output voltage is measured across the fixed resistor.

```
*
*
*                                     [M]enu
*
* Destination has been added
* -----
*
*
*
*
*
* Enter input:
```

Task 3

Task: Add an employee

```
*
* Welcome,
*
* Select user type:
* -----
* 1.Flight control
* 2.Staffing
*
* Enter input:
*
* _\(*)/_- | _n/_n/|_|_|_|_|
*
Select User type(Staffing)
*
* [M]enu
* [B]ack
*
* Staffing
* -----
* 1.All employees
* 2.An employee
*
* Enter input:
*
* _\(*)/_- | _n/_n/|_|_|_|_|
*
Select "an employee"
*
* [M]enu
* [B]ack
*
* An employee
* -----
* 1.New employee
* 2.Modify employee
* 3.Remove employee
* 4.Reports
*
* Enter input:
*
* _\(*)/_- | _n/_n/|_|_|_|_|
*
Select "new employee"
*
* [M]enu
* [B]ack
*
* New employee
* -----
* 1.Name:
* 2.ID:
* 3.Role:
* 4.Work dates:
* 4.Address:
* 5.Phone:
* 6.Email:
* 7.HomePhone(optional):
*
* Enter input:
*
* _\(*)/_- | _n/_n/|_|_|_|_|
*
Add new employee and press enter
```

Task 4

Task: Modify an employee

```
*
* Welcome,
*
* Select user type:
* -----
* 1.Flight control
* 2.Staffing
*
* Enter input:
*
* _\(*)/_- | _n/_n/|_|_|_|_|
*
Select User type(Staffing)
*
* [M]enu
* [B]ack
*
* Staffing
* -----
* 1.All employees
* 2.An employee
*
* Enter input:
*
* _\(*)/_- | _n/_n/|_|_|_|_|
*
Select "an employee"
*
* [M]enu
* [B]ack
*
* An employee
* -----
* 1.New employee
* 2.Modify employee
* 3.Remove employee
* 4.Reports
*
* Enter input:
*
* _\(*)/_- | _n/_n/|_|_|_|_|
*
Select "Modify employee"
*
* [M]enu
* [B]ack
*
* Employees
* -----
* 1.Aaron Bass
* 2.Killy Jones
* 3.Kelly Bradshaw
* 4.Dexter Jones
* 5.Phillip Moller
*
* Enter input:
*
* _\(*)/_- | _n/_n/|_|_|_|_|
*
Select an employee to modify
*
* [M]enu
* [B]ack
*
* Dexter Jones
* -----
* 1.Name: Dexter Jones
* 2.ID: 3094
* 3.Role:
* 4.Work dates: 30.11, 12.12, 28.12
* 4.Address: Main Road 12
* 5.Phone: 58-12345
* 6.Email: Dexter@manair.com
* 7.HomePhone(optional):
*
* Enter input:
*
* _\(*)/_- | _n/_n/|_|_|_|_|
*
Modify the employee and save the changes
```

Task 5

```
*
* Welcome,
*
* Select user type:
* -----
* 1.Flight control
* 2.Staffing
*
*
* Enter input:1
```

NaN Air HQ

```
* Welcome,                                     [M]enu
*                                              [B]ack
* Main Menu
* -----
* 1.Voyages
* 2.Staff
* 3.Destinations
*
* Enter Input:
```

```

*                                     [M]enu
*                                     [B]ack
*
* Destinations
* -----
* 1.Find destination
* 2.Add destination
* 3.Modify destination
*
*
* Enter input:
*
*                                     NaN Air HQ
*
*
*
*
*

```

```
*                                     [M]enu  
*                                     [B]ack  
  
* List of destinations  
* -----  
* 1.KEF, Iceland  
* 2.GOH, Greenland  
* 3. ...  
*  
* Enter input:  
*                                     NaN Air HQ  
*  
* _____ _ . . . . ____ | | | |  
* \_(*)/\_ | _n/_n_|____| | | |  
Select GOH, Greenland
```


Select GON, Greenland

```
*                                     [M]enu
*                                     [B]ack
*
* Please enter the new name of the airport
* -----
* Current airport: GOH
* New airport:
*
*
* Enter input:
*
*      _____
*     |   (*)   |
*     |_____|_||
*
*          . . . .
*          °    °
*          | n/ | n/ |
*          |___|___|
```

Task 6

Task: Add a registered employee to the Voyage to Nuuk on 12.12.2024-14.12.2024

```

[M]enu
[B]ack

Welcome,

Main Menu
-----
1.Voyages
2.Staff
3.Destinations

Enter input:

```

```
[M]enu
[B]ack

Voyages
-----
1. Create new voyage
2. Crew voyage
3. List voyages

Enter input:
```

```
[M]enu
[B]ack

Crew Voyage
-----
Search by destination or flight number
Enter input:


```

[illegible][illegible]

```
* [M]enu
* [B]ack
* Nuuk, NGX 0700 12.12.2024
* -----
* [Employee name] added
*
* Employees on this flight:
* [Employee name]
*
*
*
*
*
*
* [R]eturn to voyage menu
```