

User stories

Number	User Stories	Priority
1	As an employee of NaN Air, I need to be able to deliver and receive back rental cars	A
2	As an employee of NaN Air, I need to be able to check on a vehicle's status and if it's in good enough shape to be rented out	A
3	As Chuck Norris and/or employee of NaN Air I need to be able to register new employees, a list of their information, and their position	A
4	As an employee of NaN Air I need to be able to put together a rental contract	A
5	As an employee of NaN Air I need to be able to find an employees information and edit it	A
6	As an employee of NaN Air I need to be able to register new vehicles into a list of all vehicles	A
7	As an employee of NaN Air I need to be able to list all vehicles according to location and availability	A
8	As an employee of NaN Air I need to be able to list all vehicles according to location and damage status	A
9	As an employee of NaN Air I need to be able to update the damage status of a vehicle	A
10	As an employee of NaN Air I need to be able to register and list all rental contracts	A
11	As an employee of NaN Air I need to be able to update a rental contract to register the return time of a vehicle	A
12	As an employee of NaN Air I need to be able to change the loan time and vehicle of the rental contract	A
13	As an employee of NaN Air I need to be able to invalidate a rental contract	A
14	As an employee of NaN Air I need to be able to register new destinations and list all of them	A
15	As an employee of NaN Air I need to be able to print an invoice based	A

	on the information on the rental contract	
16	As an employee of NaN Air I need to be able to see and edit how high the taxes are for each type of vehicle and add taxes to new types of vehicles	Bds
17	As an employee of NaN Air I need to be able to see if the customer has the credentials to use certain types of vehicles	B
18	As an employee of NaN Air I need to make sure that the customer's charges are collected so that he will not get charged multiple times	B
19	As an employee of NaN Air I need to be able to make a report of my branch's performance	B

Rent a green Toyota Jimny in Kulusuk.

Jóhann Loftsson wants to go for a day trip to Kulusuuk to buy some kúlusúkkulaði. Jóhann starts by sending an Email to NaN air offices in Reykjavík where employee 69 services him. When Jóhann asks for a very specific car, Mr. 69 is able to see the available cars in Kulusuuk at the click of a button and by filtering by color and model, he finds out that there are two green Jimnies available in Kulusuuk, it is a regular sized car so Jóhann only needs a valid driver's license.

The employee then drafts the contract, he sees that Jóhann is a first time customer and fills in all the needed information about him, the car and the employee that serviced Jóhann (himself), along with the time he will receive the car and need to return it.

Jóhann flies to Kulusuuk that same day and is greeted by employee 88 of Kulusuuk, which dloans him the car he requested. Once that's done, Mr. 88 reports to the system that the customer received his car.

Jóhann returned the car two days later, that's a day later than what the contract said and he got a penalty, resulting in a 40% increase to his bill before tax.

Jóhann's customer ID gets 1 (one) GBP (Good Boy Points) for renting a car for one day and one BBP (Bad Boy Points) for returning the car late.

Mr. 88 informs Jóhann that he can use his GBP later to get better prices and special offers, but also warns him that if he gets more than 50 BBP it will result in a roundhouse kick from the boss.

When Jóhann arrives in Reykjavík, he gets his bill sent to his bank account with a full report of where each part of the cost came from. The bill looks nice and is decorated in a tasteful manner.

Kröfulistí

1. Handle contacts
2. Register a new car
3. Input car info(if it's out for rental or in the shop)
4. Make a printable report
5. Handle employee information
6. Rent cars
7. Get maintenance service for cars
8. Make a printable bill
9. Maintain each destinations status
10. maintain companies statistics
11. Maintain customer information
12. Register a new employee
13. Handle car information

Use cases

Nafn	view contract
Number	1
Description	employee finds a contract and views it
Priority	medium
Author	Haraldur Steinar Skúlason
source	1
Precondition	contract has been made and signed
Postcondition	employee has viewed contract and gives info to costumer

Nafn	Make contract
Number	2
Description	employee inputs contract information to create contract
Priority	high

Author	Haraldur Steinar Skúlason
Source	1
Precondition	costumer has decided to rent a car
Postcondition	costumer has rented a car and is now happy

Nafn	Change contract
Number	3
Description	emplyee finds contract and changes it
Priority	medium
Author	Haraldur Steinar Skúlason
Source	1
Precondition	contract has been made and has been requested to be changed
Postcondition	contract has been changed

Nafn	See list of cars
Number	4
Description	look at a list of cars
Priority	low
Author	Haraldur Steinar Skúlason
Source	13
Precondition	employee wants to look at what cars we have
Postcondition	employee has looked at car list

Nafn	Preview rental report
Number	5
Description	employee finds a report of a rental case and view it

Priority	high
Author	Haraldur Steinar Skúlason
Source	4
Precondition	rental car has been returned and reviewed
Postcondition	employee and costumer have now seen the report

Nafn	Preview printable bill
Number	6
Description	employee finds rental case in end of rent and previews printable bill
Priority	high
Author	Haraldur Steinar Skúlason
Source	8
Precondition	car has been returned and report has been looked at
Postcondition	costumer has now seen the bill

Nafn	Change employee information
Number	7
Description	employee or chuck norris finds employee in program and changes its information
Priority	medium
Author	Haraldur Steinar Skúlason
Source	5
Precondition	employee has decided to change information
Postcondition	employee information has been changed

Nafn	Delete employee
Number	8

Description	employee finds quitting employee and deletes it
Priority	low
Author	Haraldur Steinar Skúlason
Source	5
Precondition	employee has been fired or quit working at the car rental
Postcondition	employee has been deleted from the database

Nafn	Preview overview of revenue, efficiency and bills for certain period
Number	9
Description	chuck norris selects a certain period and the program displays statistics of it
Priority	low
Author	Haraldur Steinar Skúlason
Source	10
Precondition	a certain period has passed and chuck norris is curious how he did
Postcondition	the overview has been viewed

Nafn	preview statistics and info of certain rental car service destination
Number	10
Description	chuck norris selects a certain location and selects to view statistics and info
Priority	low
Author	Haraldur Steinar Skúlason
Source	11
Precondition	a certain period has passed and chuck norris is curious how he did
Postcondition	the overview has been viewed

Nafn	use loyalty points
Number	11
Description	when employee rents out a car and selects if costumer wants to use loyalty points
Priority	medium
Author	Haraldur Steinar Skúlason
Source	12
Precondition	employee asks costumer if he wants to use loyalty points and costumer says yes
Postcondition	loyalty points have been used and discount has been used

Nafn	add new employee
Number	12
Description	employee inserts new employee info and new employee is registered
Priority	high
Author	Haraldur Steinar Skúlason
Source	5
Precondition	new employee has started working at the car rental and has not yet been added to the database
Postcondition	employee has been added to the database

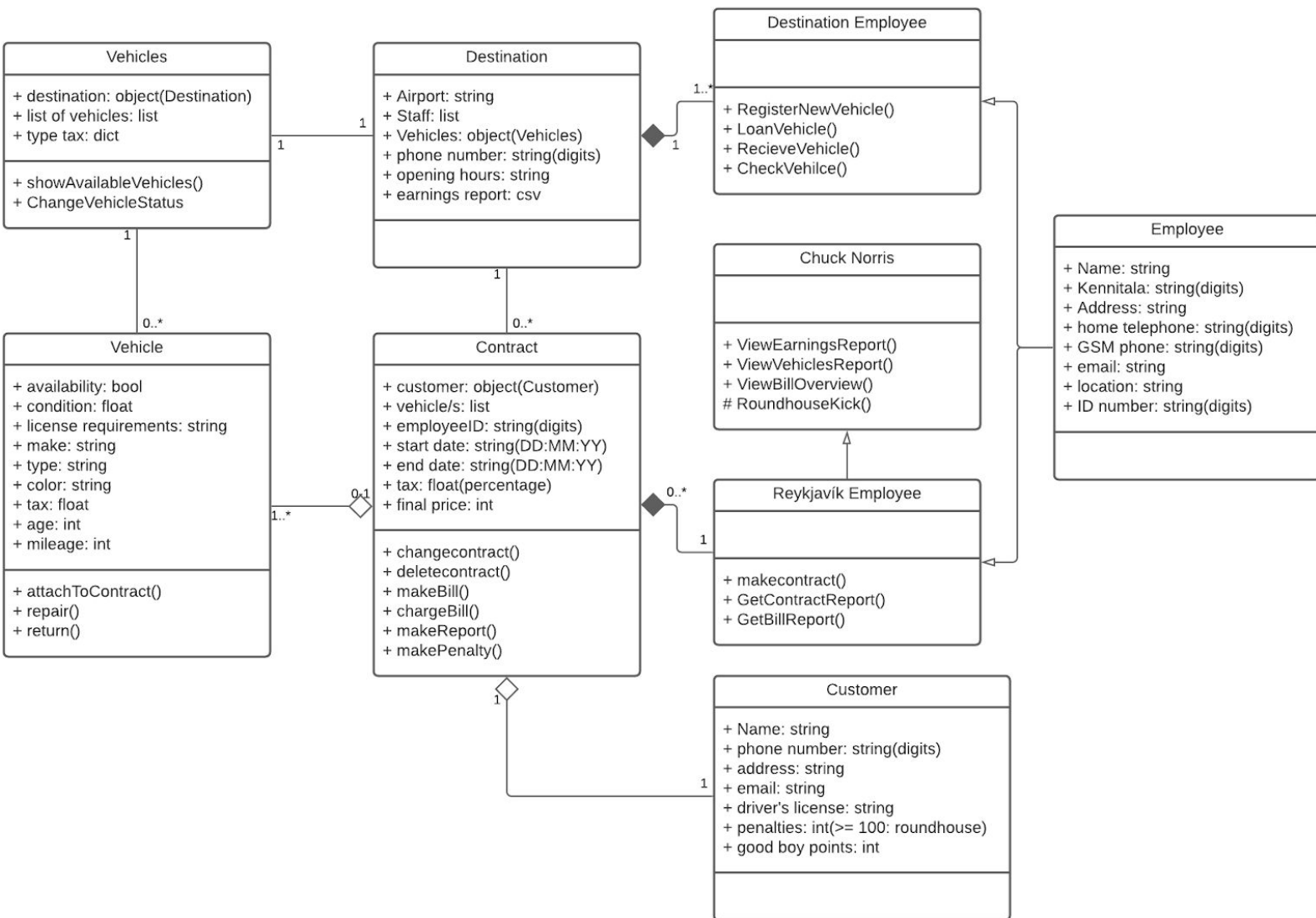
Nafn	add new vehicles
Number	13
Description	employee registrers new vehicles info into data base and new vehicle is added
Priority	high
Author	Haraldur Steinar Skúlason

Source	2
Precondition	car rental has recieved a new vehicle and has reviewed its information
Postcondition	car information has been added to the database

Nafn	register if vehicle is in good enough condition to be rented
Number	14
Description	employee reviews car on arrival and registers if car is in good enough condition to be rented
Priority	medium
Author	Haraldur Steinar Skúlason
Source	3
Precondition	car has been returned
Postcondition	employee has reviewed car and can now add it to the report

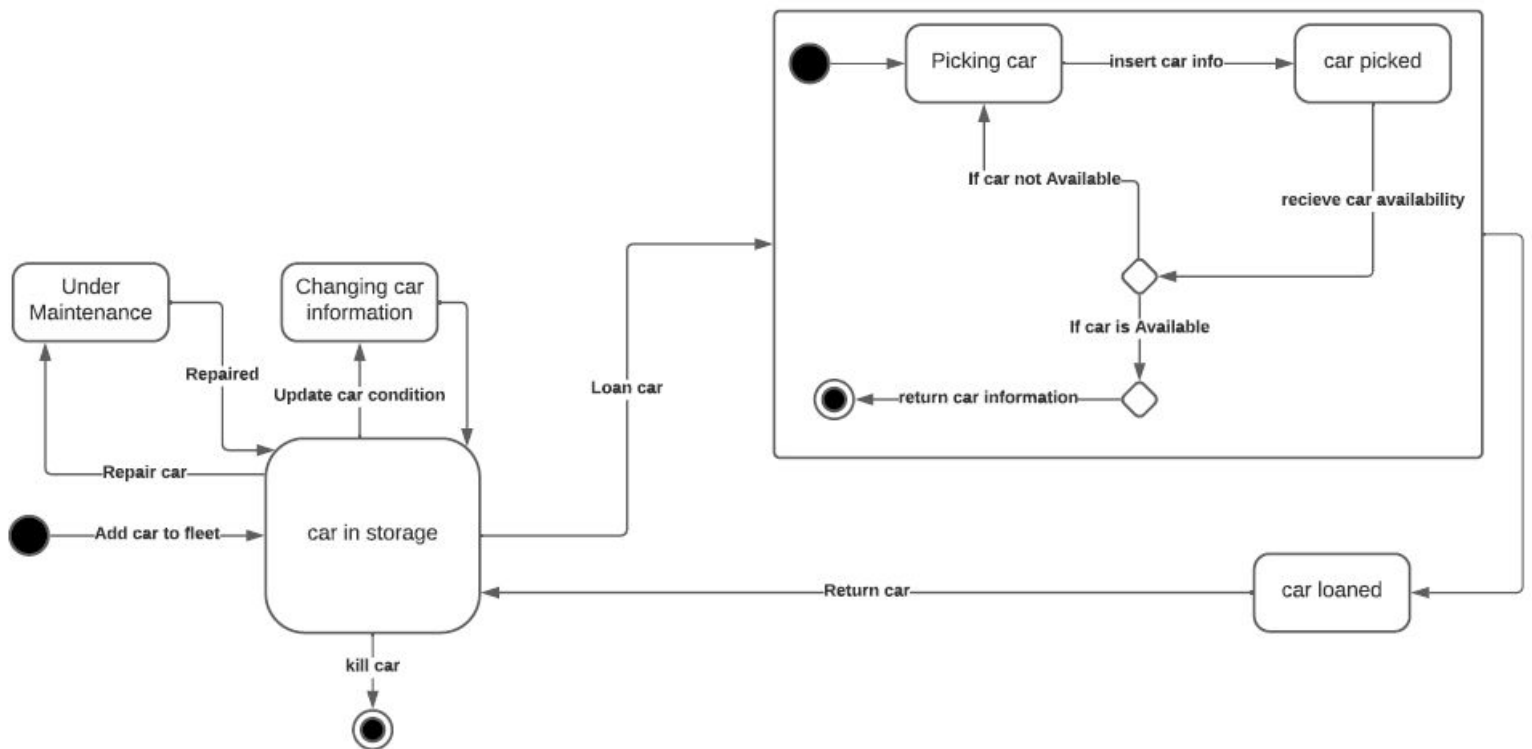
Nafn	see vehicle usage statistics in certain location
Number	15
Description	chuck norris selects to check vehicle usage statistics then selects a location and view vehicle usage statistics of that location
Priority	low
Author	Haraldur Steinar Skúlason
Source	13
Precondition	vehicle usage statistics are in the system and chuck wants to see them
Postcondition	chuck norris has seen vehicle usage statistics

Klasarit

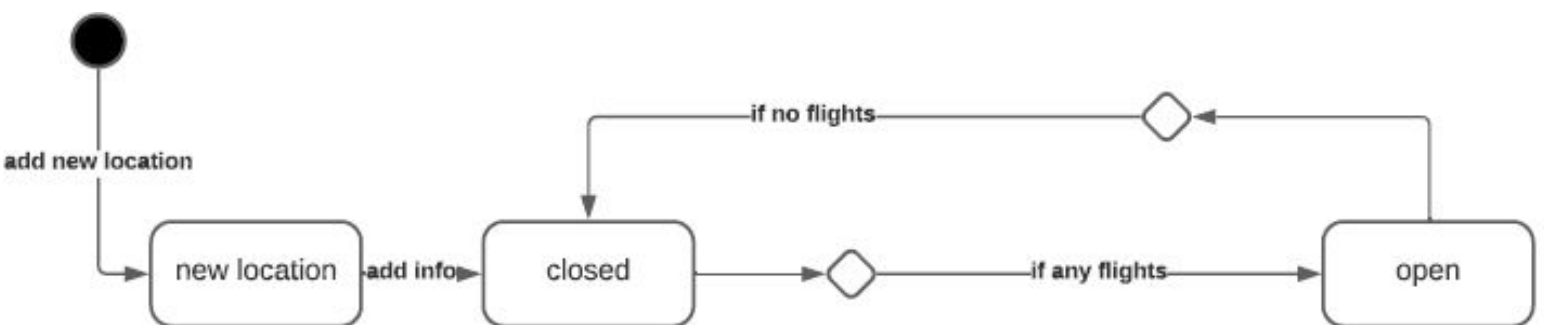


Stöðurit

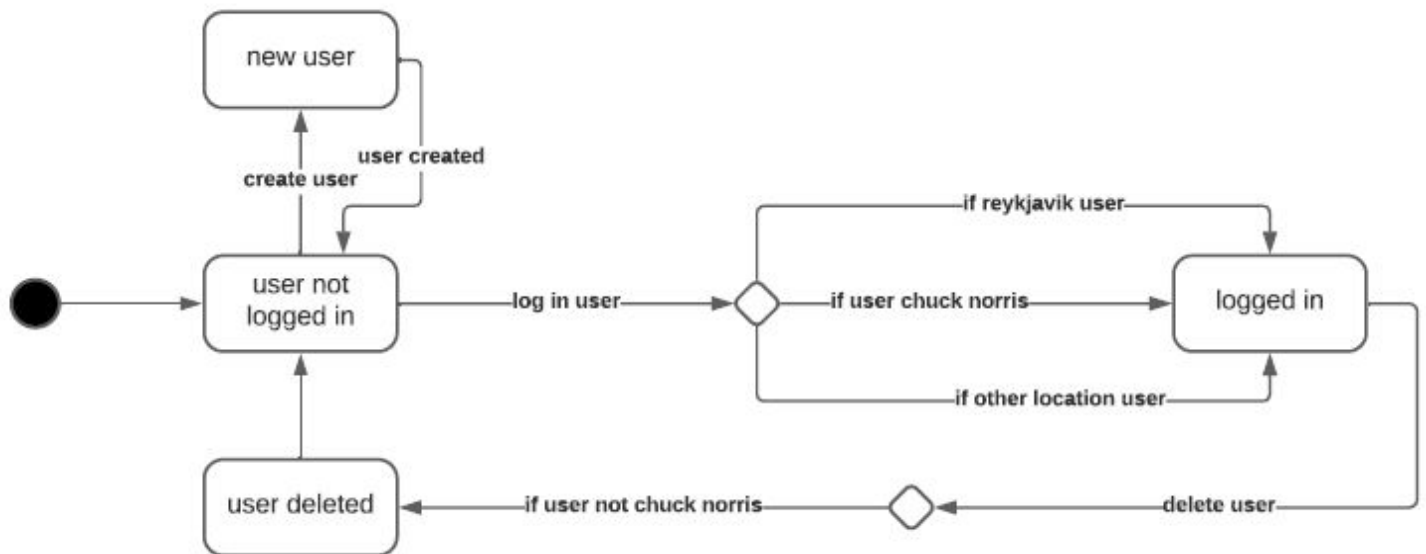
Car states



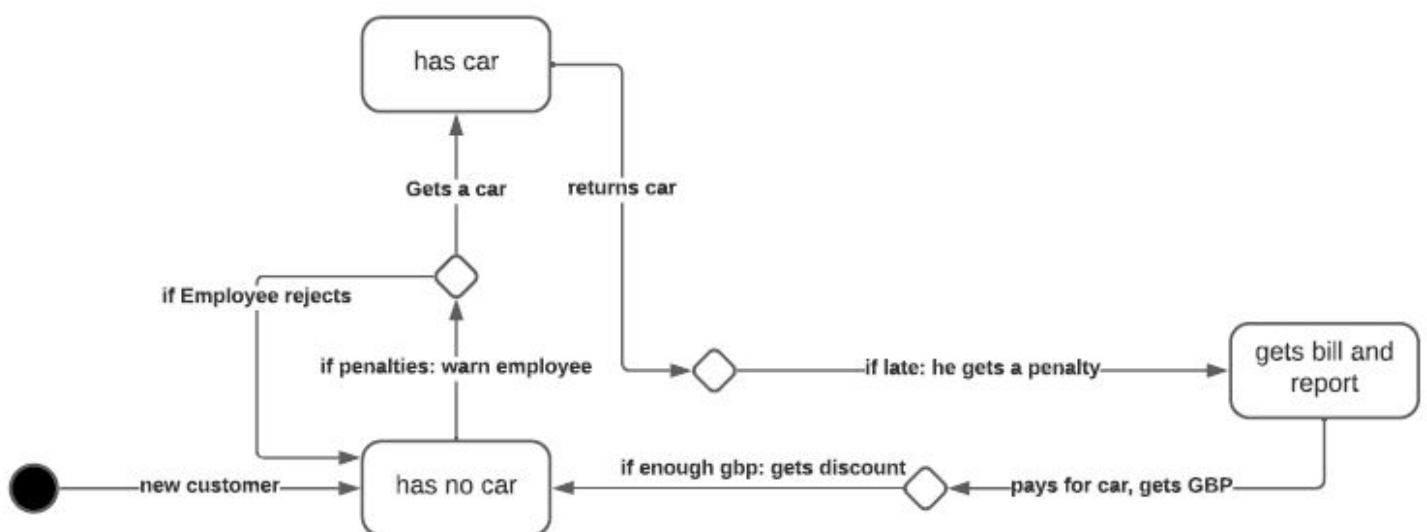
location states



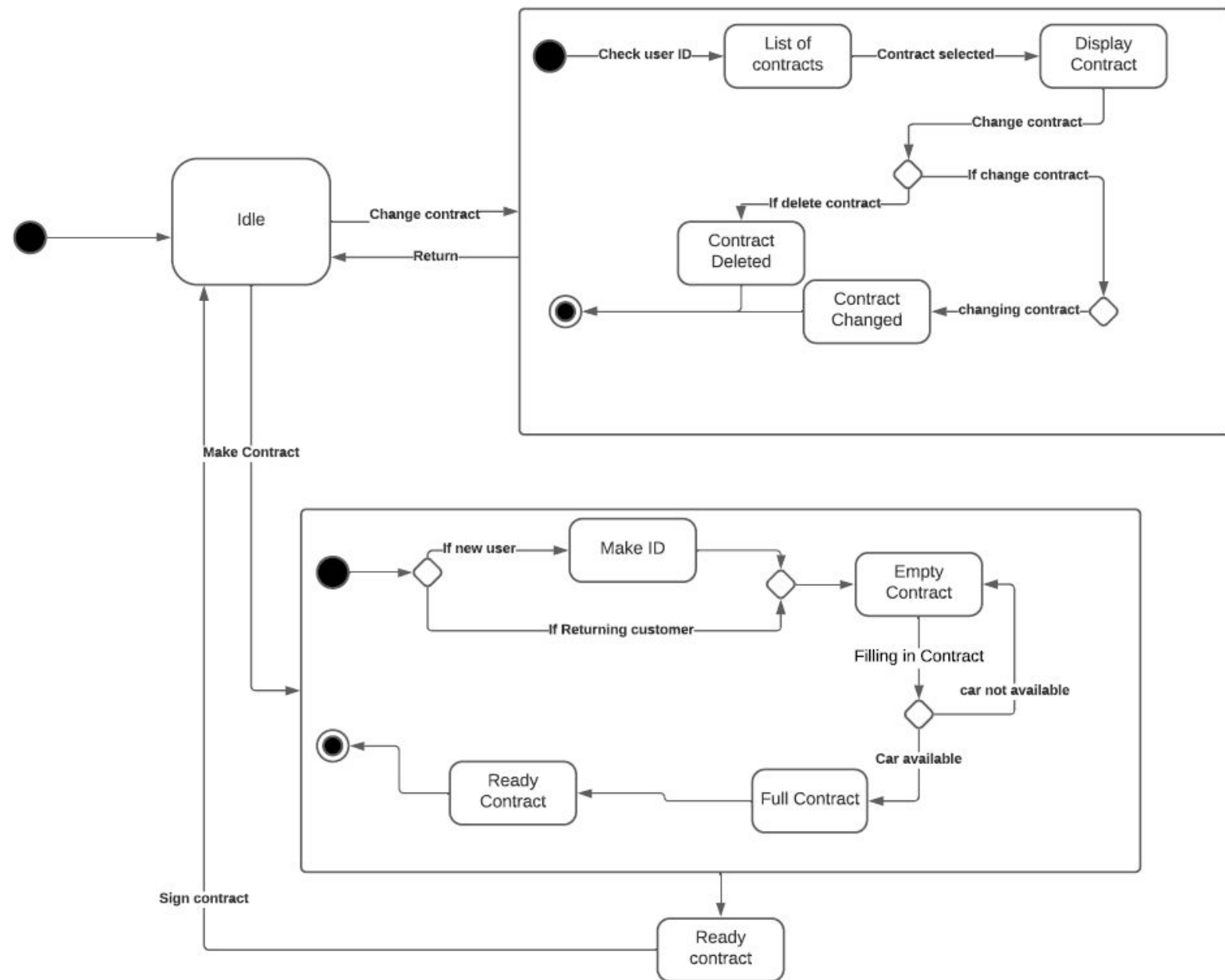
User states



Car renting states



Contract states



User analysis

Employee in Rvk	Employee not in Rvk	Chuck Norris
Age:18-65 Gender:Both Education:Basic Abilities: None Computer skills: Substantial	Age:18-65 Gender:Both Education:Basic Abilities: None Computer skills: Substantial	Age:80 Gender:Male Education:Basic Abilities: All of them Computer skills: Sufficient
Main user goals: To make rental contracts, input data in database	Main user goals: Track status for on-location vehicles	Main user goals: Track company overview
Device: Computer	Device: Computer	Device: Computer
Location of use: Reykjavík office	Location of use: Any company office(≠Rvk office)	Location of use: Office, home
When: Whenever software use is needed, likely during usual work hours	When: Whenever software use is needed, likely during usual work hours	When: Whenever software use is needed
Importance of group:Very important	Importance of group:Very important	Importance of group:Very important

UI design

Not a Reykjavik employee Menu

-----Welcome, Employee 88-----

- (1) = Register new car
- (2) = View car conditions
- (3) = View ongoing rentals
- (4) = View upcoming rentals
- (5) = View all contracts

(r) = return

Type here :

-----car condition list-----

Locations : Kulusuk, Nuuk...

Select location :

GR 19 854 : Decent

GR 24 543 : Good

JF 297 : Bad

MXU 79 : Ok

...

select car : GR 19854

(r) = Return

Type here :

"-----contract

list-----"

Contract ID	sign date	Valid date	Country	Location	loaned out	returned
#1234	12/24/3030	31/01/3031	Greenland	Kulusuk	24/01/3031	31/01/3031

(r) = Return

Type here :

Cars

-----Car Availability-----

Locations : Kulusuk, Nuuk...

Select location :

GR 19 854 : available

GR 24 543 : not available

JF 297 : in shop

MXU 79 : available

select car : GR 19854

(r) = Return

Type here :

-----Car Information-----

Licence plate : GR 19 854

make of car : Toyota

model of car : jimny

Condition of car : good

licence needed : B

car tax : 20%

(r) = return

Type here :

-----car information-----

Licence plate : GR 19 854

----- Register new car -----

Licence plate :

make of car :

model of car :

Condition of car :

licence needed :

car tax :

(r) = return

(f) = Finish

Type here :

-----Viewing ongoing rentals in Kulusuk-----

13:30 21/11/2020 - 13:30 25/11/2020 Ríkharður J. GR 24 753

13:30 23/11/2020 - 13:30 28/11/2020 Jóhann L. GR 35 538

(r) = Return

Type here :

RVK employee menu

-----Welcome, Employee 69-----

(1) = Create new contract

(2) = View contract

(3) = Print contract

(4) = Print report

(5) = Add new employee

(6) = Change employee

(7) = Delete employee

Type here :

Employee

-----New Employee-----

Employee ID : #29

Name : Jonathan Crawford

Kennitala : 0212950202

Address : Bungalow 7

Location : Svalbard

email : JonnyCawCaw@svalbard.com

Home telephone : 581 2345

GSM phone : 765 1234

password : *****

Confirm password : *****

Add employee(y):

Return (r):

Type here :

-----Change Employee-----

Employee ID : #29

Name : Jonathan Crawford

change (y / n) :

Address : Bungalow 7

change (y / n) :

Location : Svalbard

change (y / n) :

email : JonnyCawCaw@svalbard.com

change (y / n) :

Home telephone : 581 2345

change (y / n) :

GSM phone : 765 1234

change (y / n) :

password : *****

change (y/n) :

-----Delete Employee-----

Employee ID : #29

Confirm (y / n) :

Customer

----New customer-----

Name :

license # :

Phone number :

Address :

Email :

Driver's license type :

(r) = Return

(f) = Finish

Type here :

-----Confirm new customer-----

Customer ID #1563

Name: Jóhann Loftsson

Address: Dúfnahólar 10

Email: icehot1@AOL.com

Phone number: 696-9420

Driver's license type: B

IS THIS INFO CORRECT? (y / n) :

Contracts

-----Returning Customer-----

Driving registration nr :

(r) = Return

(f) = Finish

Type here :

-----Creating new Contract-----

(1) = Returning Customer

(2) = New Customer

(r) = Return

Type here :

-----Creating new Contract-----

good boy points :

Use Good Boy Points (y / n) :

Rental start date :

Rental end date :

Location : [Select]

(r) = Return

(f) = Finish

Type here :

-----Contract search-----

Contract ID : #4743

-----Contract-----

Contract ID : #4743

Employee ID: #28

license nr : #1563

Location : Kulusuk

Vehicle plate : #GR 35 538

Start date : 23/11/2020

End date : 24/11/2020

Total price : 13,000

(c) = Change contract

(r) = Return

Type here :

-----Changing contract-----

Vehicle plate #GR 35 538

change (y / n) :

Start date: 23/11/2020

change (y / n) :

End date: 24/11/2020

change (y / n) :

(f) = finish

(c) = Cancel

Type here :

Finding vehicle

-----Kulusuk Vehicles-----

Make :

Model :

Color :

(0) = Random car

(s) = Search

(r) = Return

Type Here :

-----Search results-----

Location: Kulusuk

Make: Toyota

Model: Jimny

Color: Green

car tax is 20%

----2 MATCHES----

1) GR 35 538

2) GR 88 666

(c) = Cancel

(r) = Return

Type Here :

Returning vehicle

-----car return condition-----

license plate : #GR 35 538

Contract ID : #4743

start condition : good

end condition : (bad / very good / good / medium)

-----Preview Report-----

license nr : #1563

license plate : #GR 35 538

start date : 23/11/2020

end date : 24/11/2020

date returned : 27/11/2020

start condition : very good

end condition : very bad

good boy points earned: 10

(r) = Return

Type here :

-----Preview Bill-----

location : Kulusuk

license nr : #1563

license plate : #GR 35 538

start date : 23/11/2020

end date : 24/11/2020

base price : 10000

Car tax : 3000

Penalty : 4800

Price : 17800

(r) = Return

Type here :

Chuck norris menu

-----Welcome, Chuck Norris-----

(1) = Revenue overview

(2) = Vehicle usage overview

(3) = Bill overview

Type here :

-----Revenue overview-----

From: (DD:MM:YY)

To: (DD:MM:YY)

Office:

Vehicle type:

(r) = Return

Type here :

-----Vehicle usage overview-----

Office:

(r) = Return

Type here :

-----Bill overview-----

From: (DD:MM:YY)

To: (DD:MM:YY)

Customer ID:

Status:

(r) = Return

Type here :