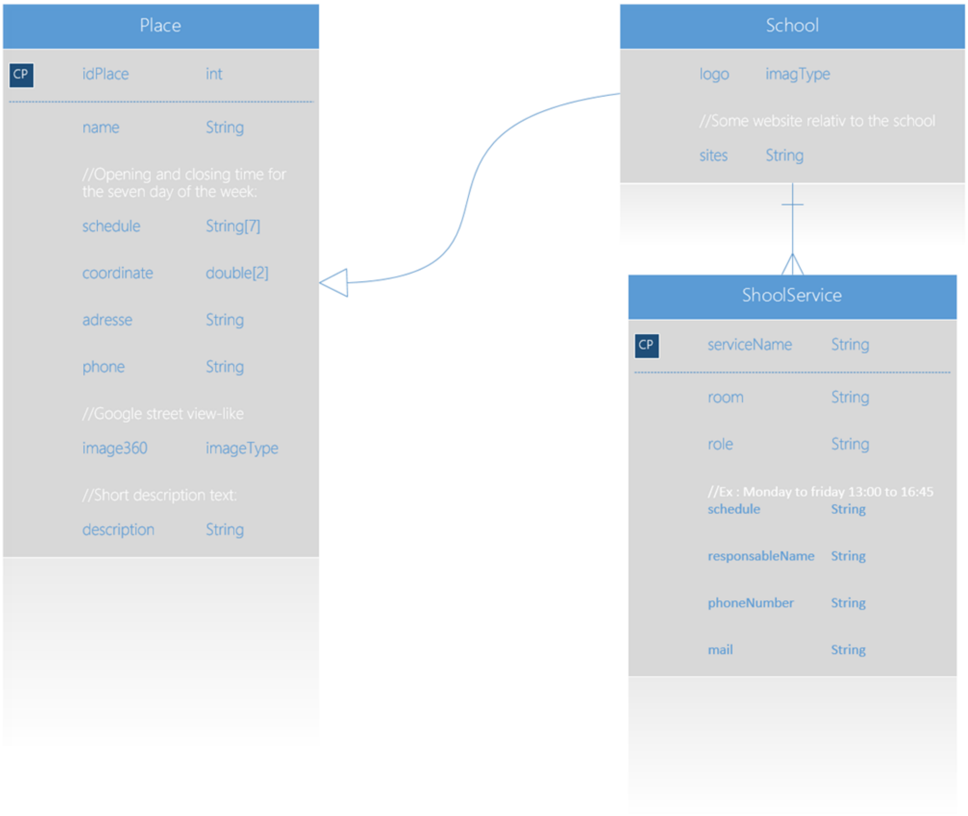
EXTERNAL SPECIFICATION DOCUMENT FOR IMAP

INTRODUCTION

IMAP is an application that aim to provide information to help student to find their way on the campus. It is a mobile application. This is the ESD of the Andoid's platform vertion.

In this section are provided all the information needed to understand this document.

Database architecture



Place

CP	idPlace	int
	name	String
	//Opening and closing time for the seven day of the week.	
	schedule	String[7]
	coordinate	double[2]
	adresse	String
	phone	String
	//Google street view-like	
	image360	imageType
	//Short description text:	
	description	String

School

logo	imagType
//Some website relativ to the school	
sites	String

ShoolService

CP	serviceName	String
	room	String
	role	String
	//Ex : Monday to friday 13:00 to 16:45	
	schedule	String
	responsableName	String
	phoneNumber	String
	mail	String

Place can be both railway station, commerce or school.

A « School » is a « Place » who got special atribute, it has a logo and many services linked to it. (Secrétériat, bureau de comunication, Bug buster) the information of a shcool be accesible only by student of this school. The information about places can be acesible by anyone. Acordingly a school can be consulted rather on 'place data' screen or on the 'shool data screen'where there is additional information.

The dataState contextual vaiable.

This section is nesesary to understand the feedback function. Etch time imag will be lachuned a state variable will be instenciated.

The state variable aim to store all the information related to :

-The curent selected place.

-The user identity.

-The user phisical position.

-The user preference.

```
struct stateData{

       bool isLoged default = false;/* true if the user is loged in */

       string userName; /*Name of the user*/

       adeStateType adeParameter;/* The parameter that alow to configure
                                  ADE to display personal student skedual
                                  it rely on the cours he has signed in. */

       int[3] idSchool; /*Ident of the school in withch the student folow he's
                                   formation.*/

       double[2] userCoordinate; /* Position of the user on the campus map*/

       int idSelectedPlace default = -1;/* The currently selected place */

       double[2] selectedPlaceCoordinate; /*Coordinate of the selected place relativ
                                            to the campus map data pictcture's frame*/

};
```

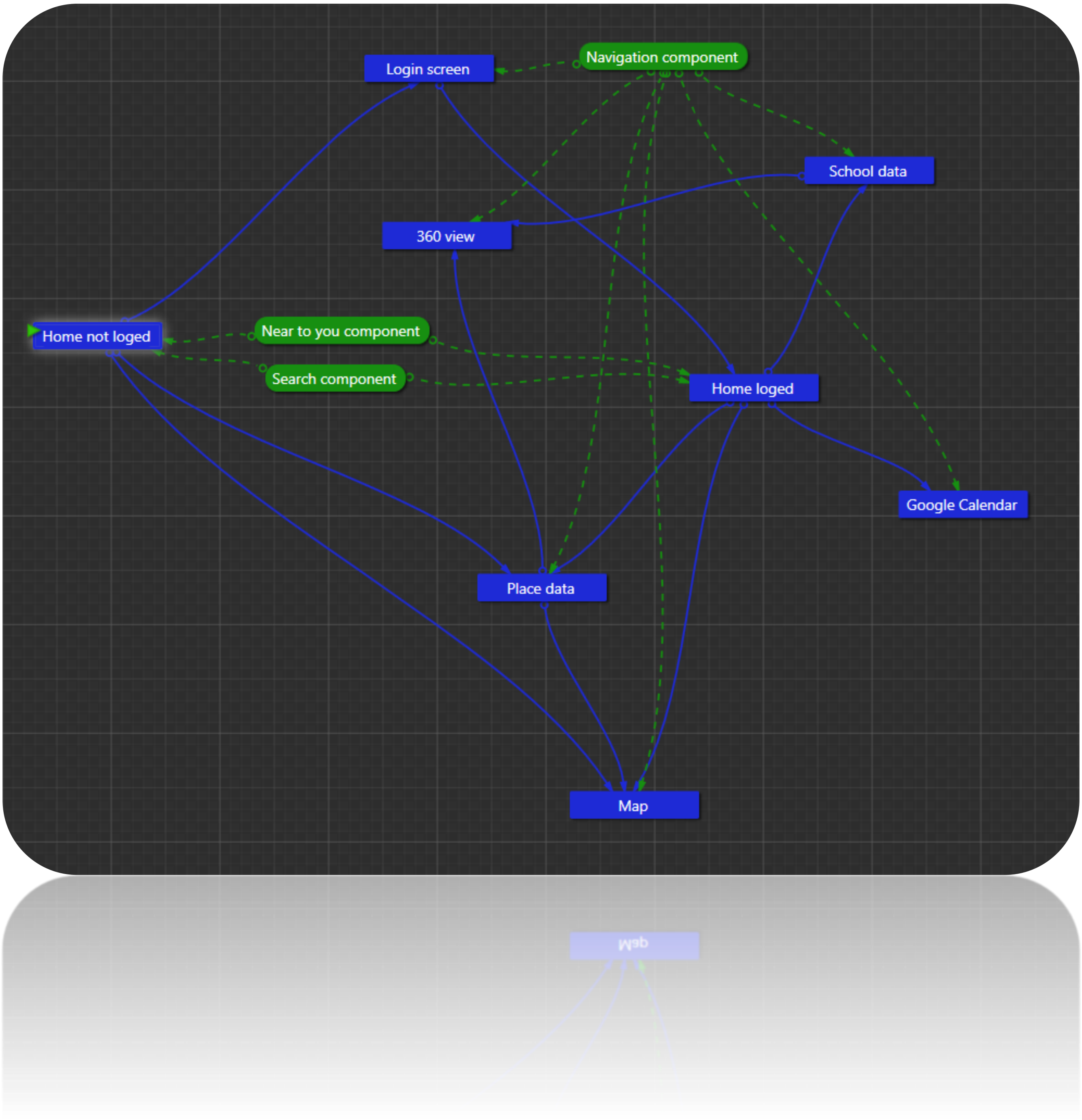
Description

App Font default font: Microsoft JhengHei UI Light

Transition between screen : Fade in(~100ms)

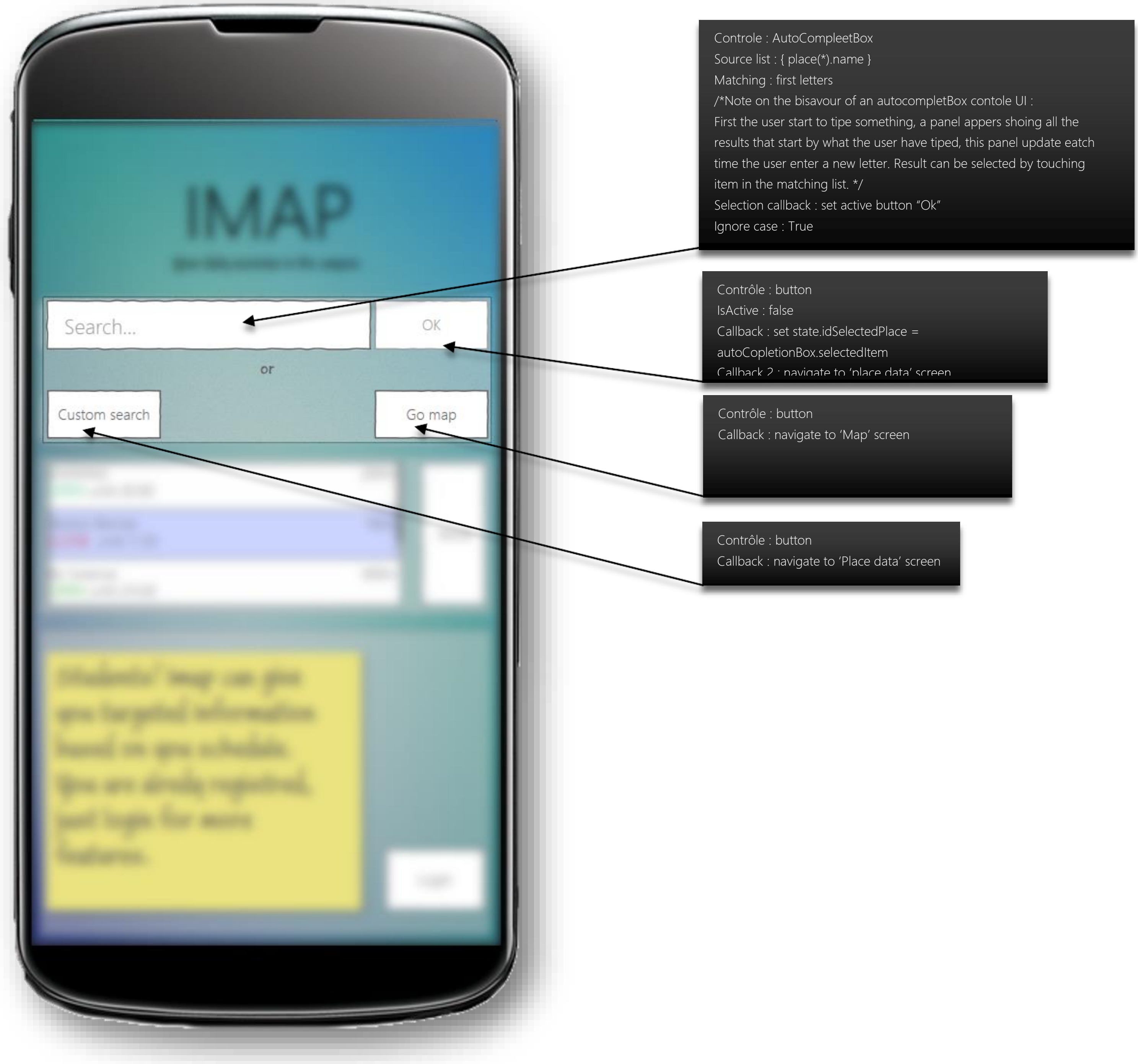
Loading feedBack default: The screen gradualy blur.

Sketchflow map



The 'Search' component.

A custom component is a set of controle UI that can be reused in multiple screen. The custom components appear in green in the sketchflow map.



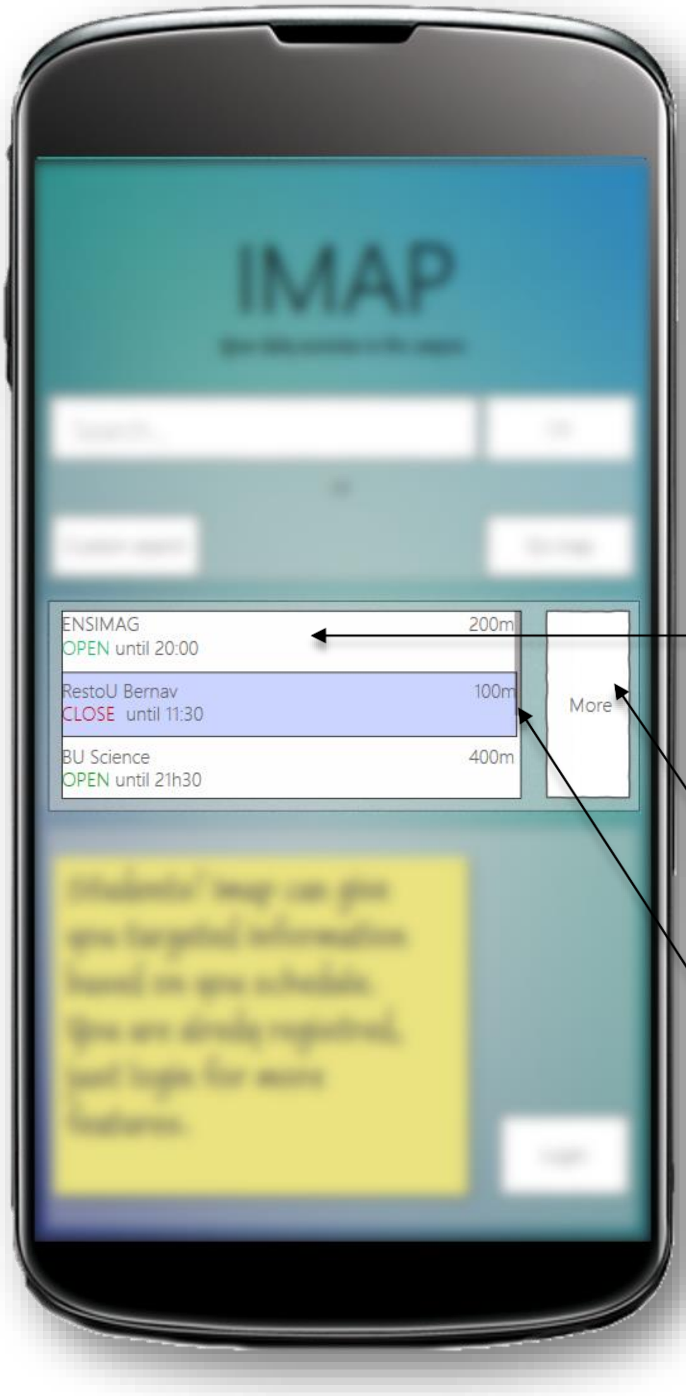
Controle : AutoCompleetBox
Source list : { place(*).name }
Matching : first letters
/*Note on the bisavour of an autocompletBox contole UI :
First the user start to tipe something, a panel appers shoing all the results that start by what the user have tiped, this panel update eatch time the user enter a new letter. Result can be selected by touching item in the matching list. */
Selection callback : set active button "Ok"
Ignore case : True

Contrôle : button
IsActive : false
Callback : set state.idSelectedPlace = autoCopletionBox.selectedItem
Callback 2 : navigate to 'place data' screen

Contrôle : button
Callback : navigate to 'Map' screen

Contrôle : button
Callback : navigate to 'Place data' screen

The ‘Near to your position’ component.



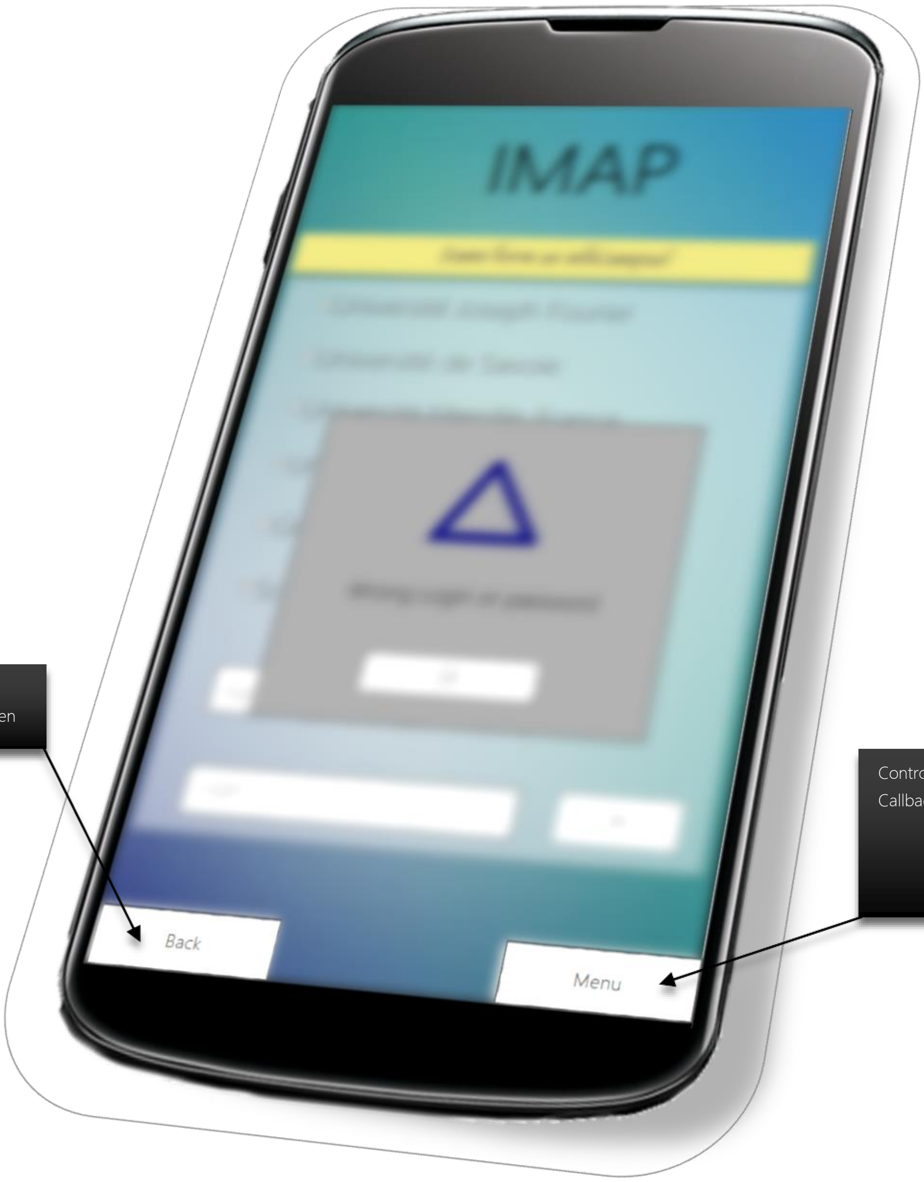
Controle : TextboxList
Scrolable : Yes
Source list: bind (in) to { format(place(*).name, place(*).schedule[ ], place(*)coordinate) }
Format : -use Device.curentTIme and Device.currentDate to determrmine rather if the place is open or close.
-use State.userCoordinate to determine how far the place is from the user postion
Selection callback : Set active button “More”
Sorted : Yes, by decreasing distance form the user position (Not applied on the sketch, it’s a mistake)

Controle : Button
isActive : false
Callback : set State.idSelectedPlace = solve(place(x).name = texboxList.selectedItem)
Callback 2 : navigate to ‘place Data’ screen

Controle : Scrollbar
Height : textboList.Size.y/device.screenSizeY
Position : bind (in ONLY) to proportion of scroling.

In a word : A scroll bar only for guidance, the scrolling is done by dragging.

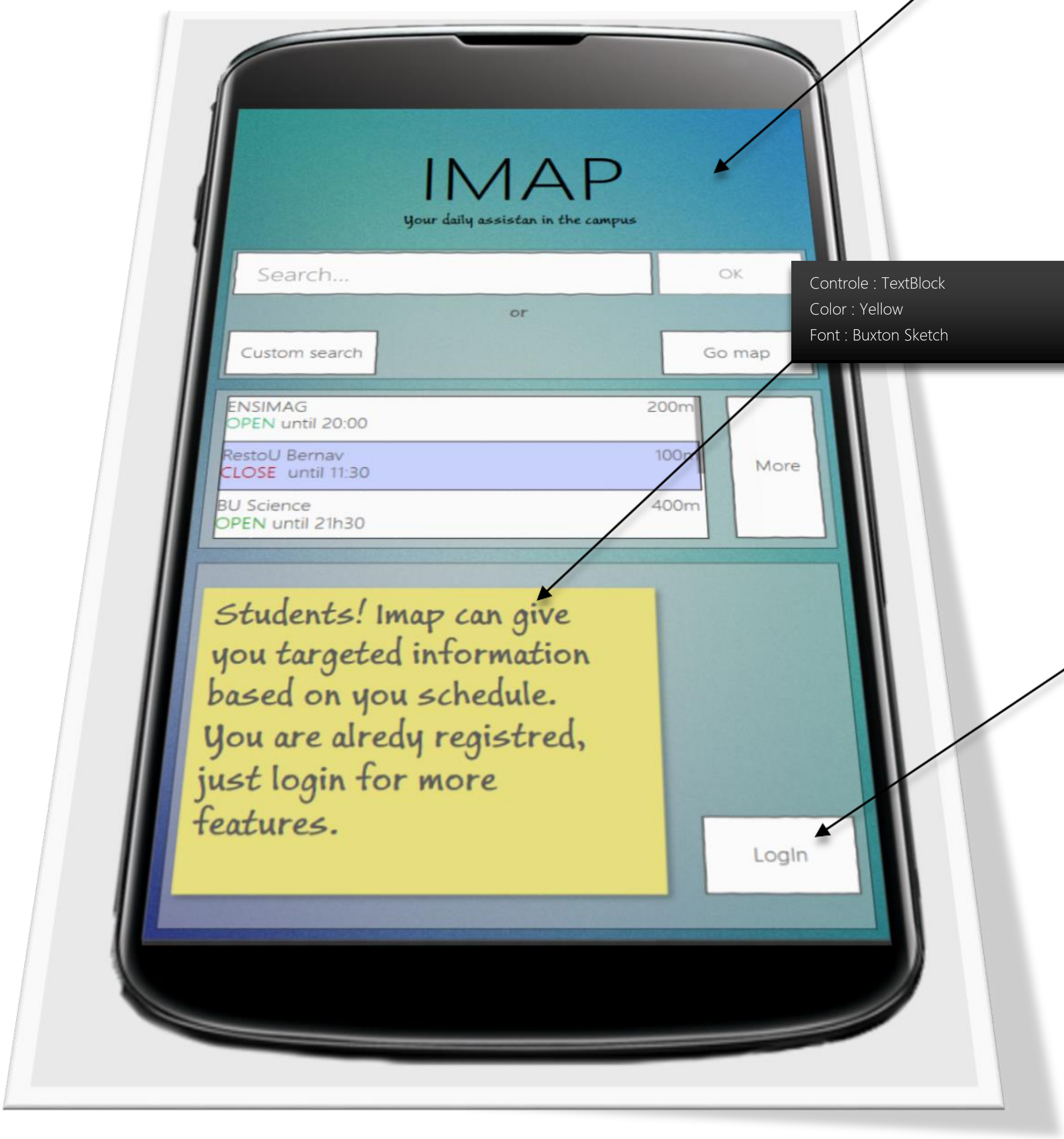
The ‘Navigation’ component.



Controle : button
Callback : Navigate to previous screen

```
Controle : Button
Callback : if state.isLoged then
                Navigate to Home loged
                Else
                Navigate to Home not loged
```

The ‘Home not loged’ screen.



ENSIMAG 200m
OPEN until 20:00

RestoU Bernav 100m
CLOSE until 11:30

BU Science 400m
OPEN until 21h30

Students! Imap can give you targeted information based on you schedule. You are alredy registred, just login for more features.

Contrôle : Contener.grid
ScrollableY : yes
Multi sale image : yes(blueTheme.jpg)
Size : (device.screenSizeX, autoAdapte)
Contrôle : TextBlock

Controle : TextBlock
Color : Yellow
Font : Buxton Sketch

Controle : Button
Callback : Navigate to login screen

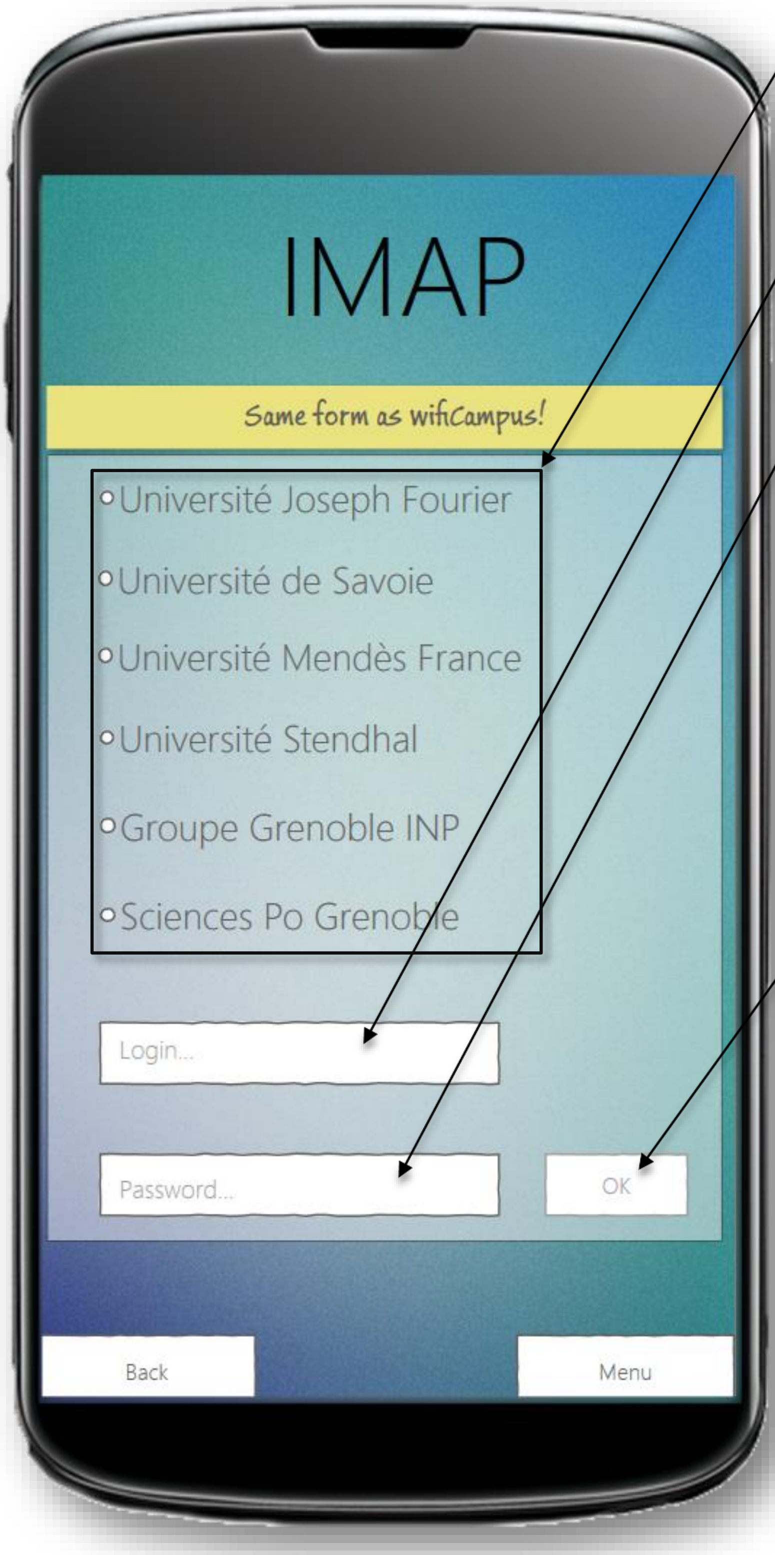
The ‘Login’ screen

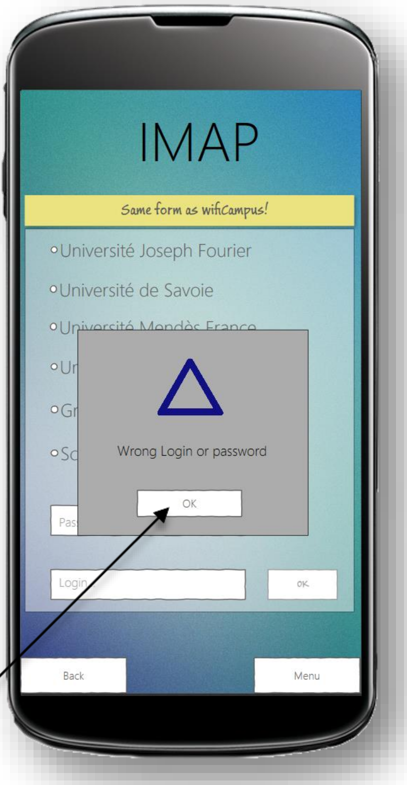
```
Controle : Radiobutton
Set callback :
Data in callback : if textInbox(“Password”).dataIn != null
and textbox(“Password”).dataIn != “”  then
Set active button(“Ok”)
```

```
Controle : TextInBox
Data in callback : if radiobuttons.isSet
and textInbox(“Password”).dataIn != null
then
Set active button(“Ok”)
```

```
Controle : PasswordTextInBox
/*The password textIn box hide the character typed*/
Data in callback : if radiobuttons.isSet
and textInbox(“Login”).dataIn != null  then
Set active button “Ok”
```

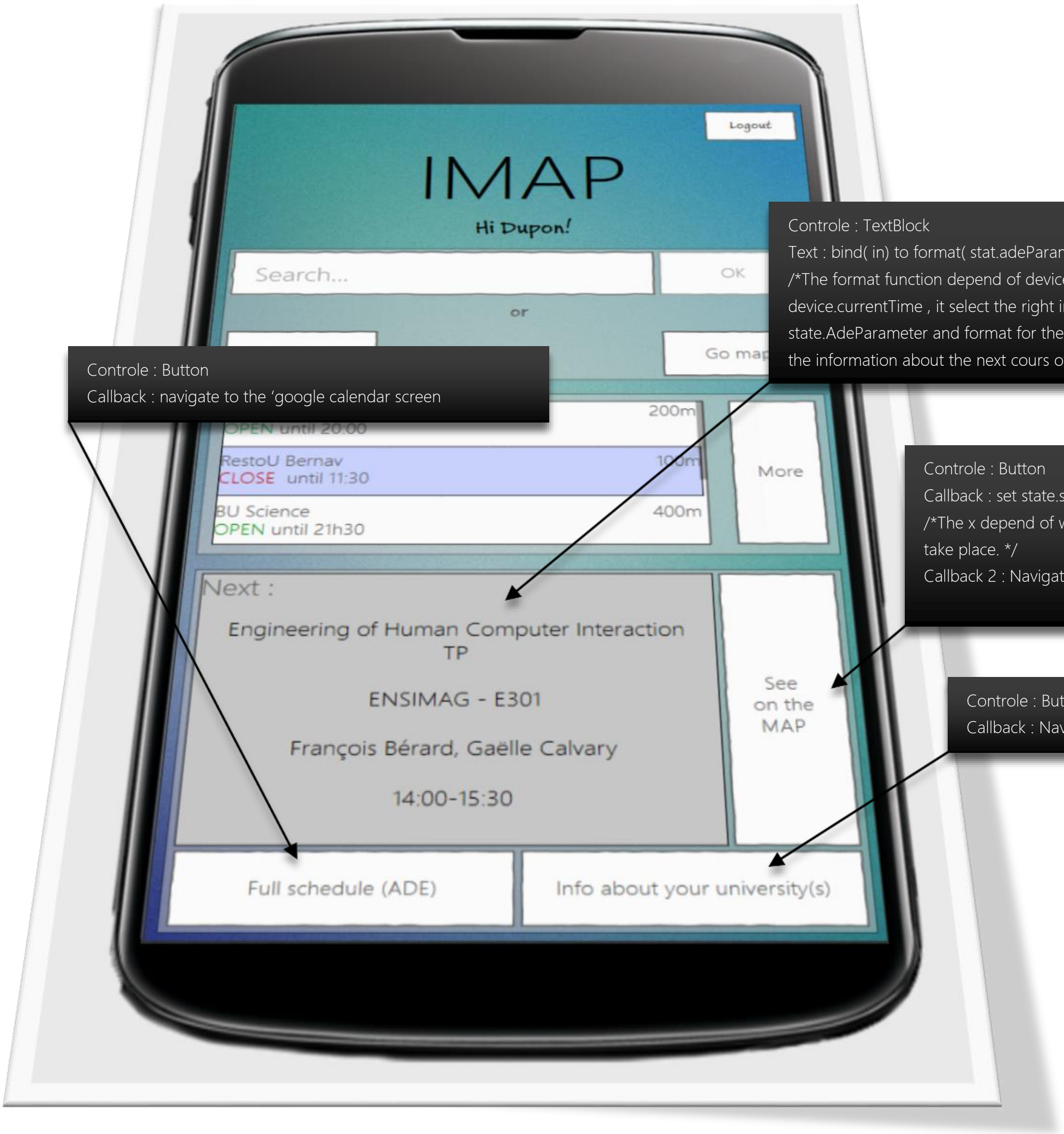
```
Controle : button
IsActive : false
Loading feedback : The size of the main contener grid
decrease by 10%.
Callback : set sate.userLogin = TextInbox(“login”).data
           Set state.userPassword = textInBox(“Password”).data
Callback 2 : (web connexion needed)
if (Login,password) are in the tatabase then
             set state.adeParam
/*We get the ICS param from ade and store it in the
state.adeParam, ICS  param contain all information needed to
re built the user schedule.*/
             Set state.idShool
/*Based on the ICS param we set the state.idSchool value to
correspond with the school(s)/university(s) the student attend
classe of. */
             Navigate to ‘Home loged’ screen
Else
             Display errorMessage
fi
```





```
Controle : Button
Callback : Close this error frame
```

The 'Home Loged' screen



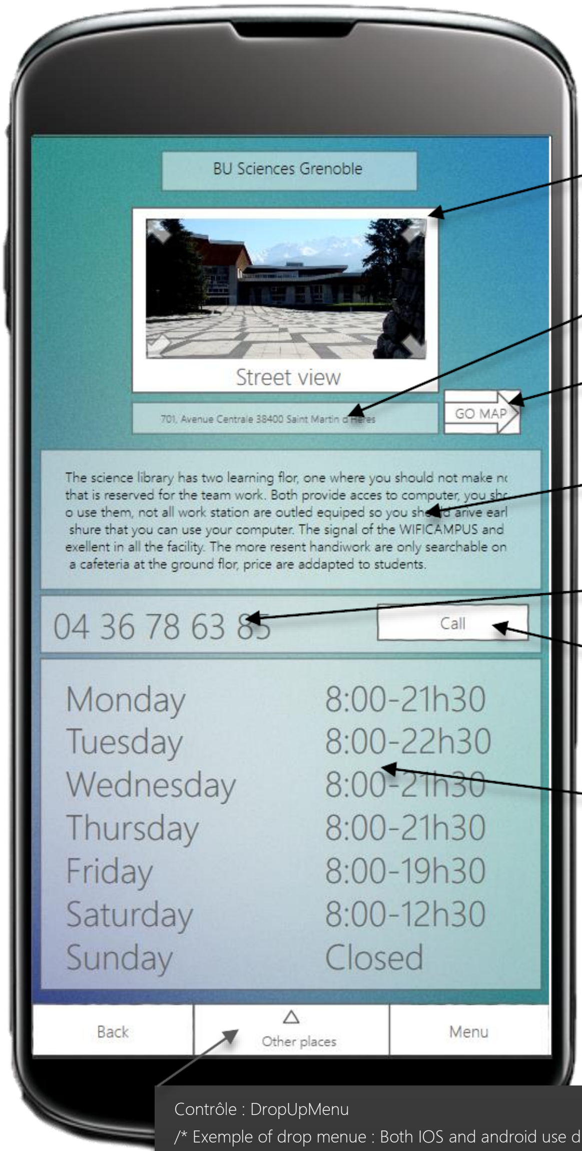
Controle : TextBlock
Text : bind(in) to format(stat.adeParameter)
/*The format function depend of device.currentDate ant device.currentTime , it select the right information from state.AdeParameter and format for the textBloc controle UI the information about the next cours of the student */

Controle : Button
Callback : navigate to the 'google calendar screen

Controle : Button
Callback : set state.selectedPlace = state.idShool[x]
/*The x depend of withch university or school the next cours take place. */
Callback 2 : Navigate to the 'Map' screen.

Controle : Button
Callback : Navigate to 'school data'

The ‘Place data’ screen



BU Sciences Grenoble

Street view

701, Avenue Centrale 38400 Saint Martin d'Hères

GO MAP

The science library has two learning flor, one where you should not make nc
that is reserved for the team work. Both provide acces to computer, you shc
o use them, not all work station are outled equiped so you should arive earl
shure that you can use your computer. The signal of the WIFICAMPUS and
exellent in all the facility. The more resent handiwork are only searchable on
a cafeteria at the ground flor, price are addapted to students.

04 36 78 63 85

Call

Monday	8:00-21h30
Tuesday	8:00-22h30
Wednesday	8:00-21h30
Thursday	8:00-21h30
Friday	8:00-19h30
Saturday	8:00-12h30
Sunday	Closed

Contrôle : button
Style : Custom depend of place(state.placeId).image360)
Callback : navigate to screen360view
Callback transition : extend the source image to all screen

Controle : TextBox
Source : bind(in) to place(state.selectedPlaceId).adress

Controle : Button
Callback : Navigate to ‘Map Screen’

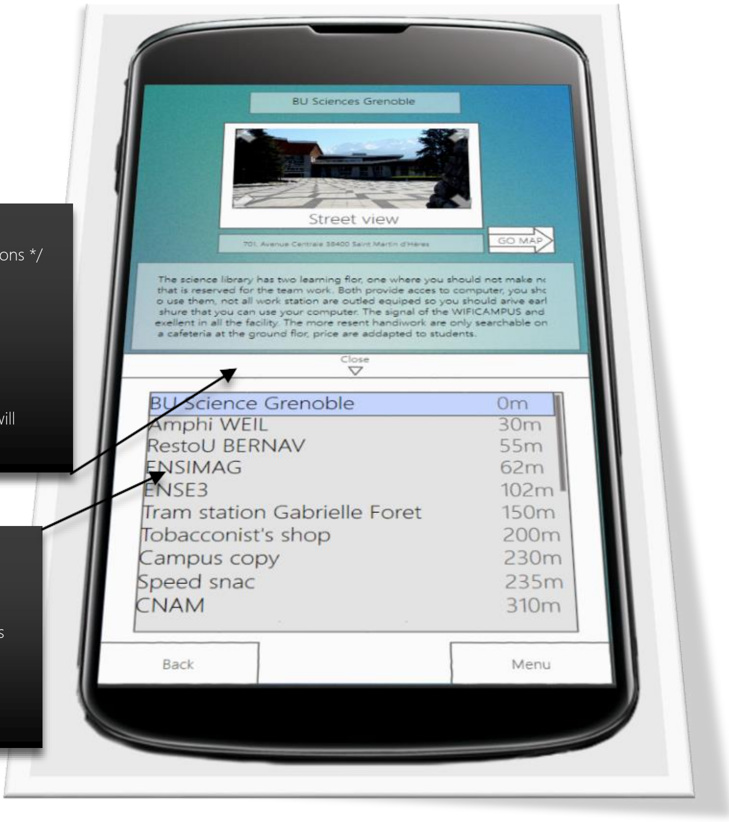
Controle : TextBox
Source : bind(in) to place(sate.selectedPlace).descriptionText

Controle : TextBlock
Source : bind(in) to place(sate.selectedPlace).phoneNumber

Controle : Button
Callback : Open the phone application of the phone with entry parameter place(state.placeId).phoneNumber

Controle : TextblockList
Source : bind(in) to { place(state.selectedPlace).schedule[1..7] }

Contrôle : DropUpMenu
/* Exemple of drop menue : Both IOS and android use dropMenu to acces options */
Extend by dragging : On
Toutch callback : Auto extend (~200ms transition), sort TextBox list.
Forced Height : yes = device.screenY/2
Width : devic.screenX
Hitbox of the retract barr : extendet to all the top of the screen.
/*ie when the dropMenu is extended any action on the half top on the screen will cause the Menu to retract.



BU Sciences Grenoble

Street view

701, Avenue Centrale 38400 Saint Martin d'Hères

GO MAP

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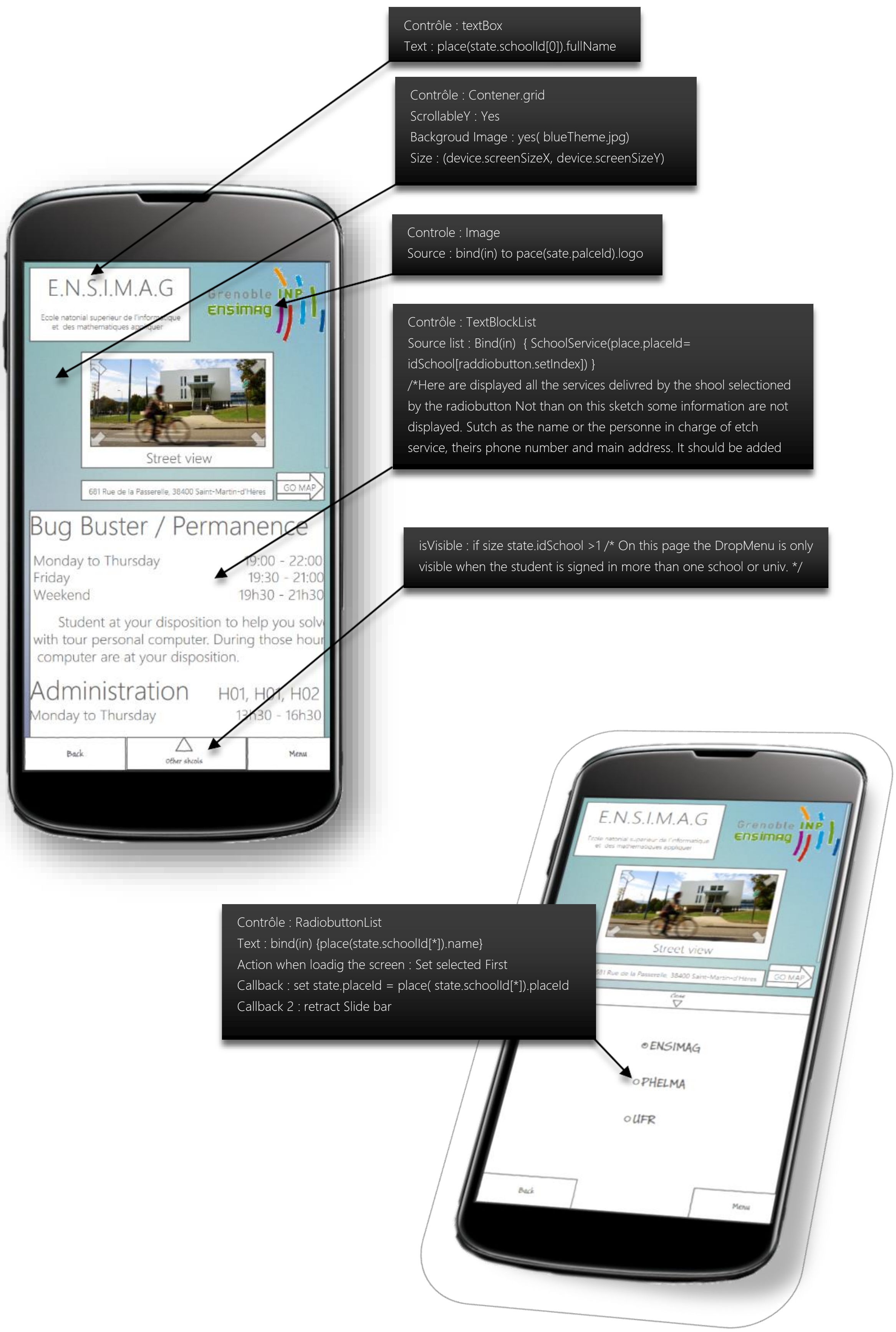
exellent in all the facility. The more resent handiwork are only searchable on
a cafeteria at the ground flor, price are addapted to students.

BU Science Grenoble	0m
Amphi WEIL	30m
RestoU BERNAV	55m
ENSIMAG	62m
ENSE3	102m
Tram station Gabrielle Foret	150m
Tobacconist's shop	200m
Campus copy	230m
Speed snac	235m
CNAM	310m

Contrôle : TextBoxList
Scrolable : Yes
List source : bind(in) to format({ place(*).name, place(*).coordinate})
The format function use the place(state.placeId).coordinate to compute the distances of the differents place from the selected one. */
Sorted : Yes, by desending distance order, the sort is updated only when the DropMenu is extended
Selection callback : set state.placeId = solve(place(x).name = this.selectedItem)

School screen



Contrôle : textBox
Text : place(state.schoolId[0]).fullName

Contrôle : Contener.grid
ScrollableY : Yes
Backgroud Image : yes(blueTheme.jpg)
Size : (device.screenSizeX, device.screenSizeY)

Controle : Image
Source : bind(in) to pace(sate.palceId).logo

Contrôle : TextBlockList
Source list : Bind(in) { SchoolService(place.placeId= idSchool[raddiobutton.setIndex]) }
/*Here are displayed all the services delivred by the shool selectioned by the radiobutton Not than on this sketch some information are not displayed. Sutch as the name or the personne in charge of etch service, theirs phone number and main address. It should be added

isVisible : if size state.idSchool >1 /* On this page the DropMenu is only visible when the student is signed in more than one school or univ. */

Contrôle : RadiobuttonList
Text : bind(in) {place(state.schoolId[*]).name}
Action when loadig the screen : Set selected First
Callback : set state.placeId = place(state.schoolId[*]).placeId
Callback 2 : retract Slide bar

E.N.S.I.M.A.G
Ecole natonial superieur de l'informatique et des mathematiques appliquer

Street view

681 Rue de la Passerelle, 38400 Saint-Martin-d'Hères

GO MAP

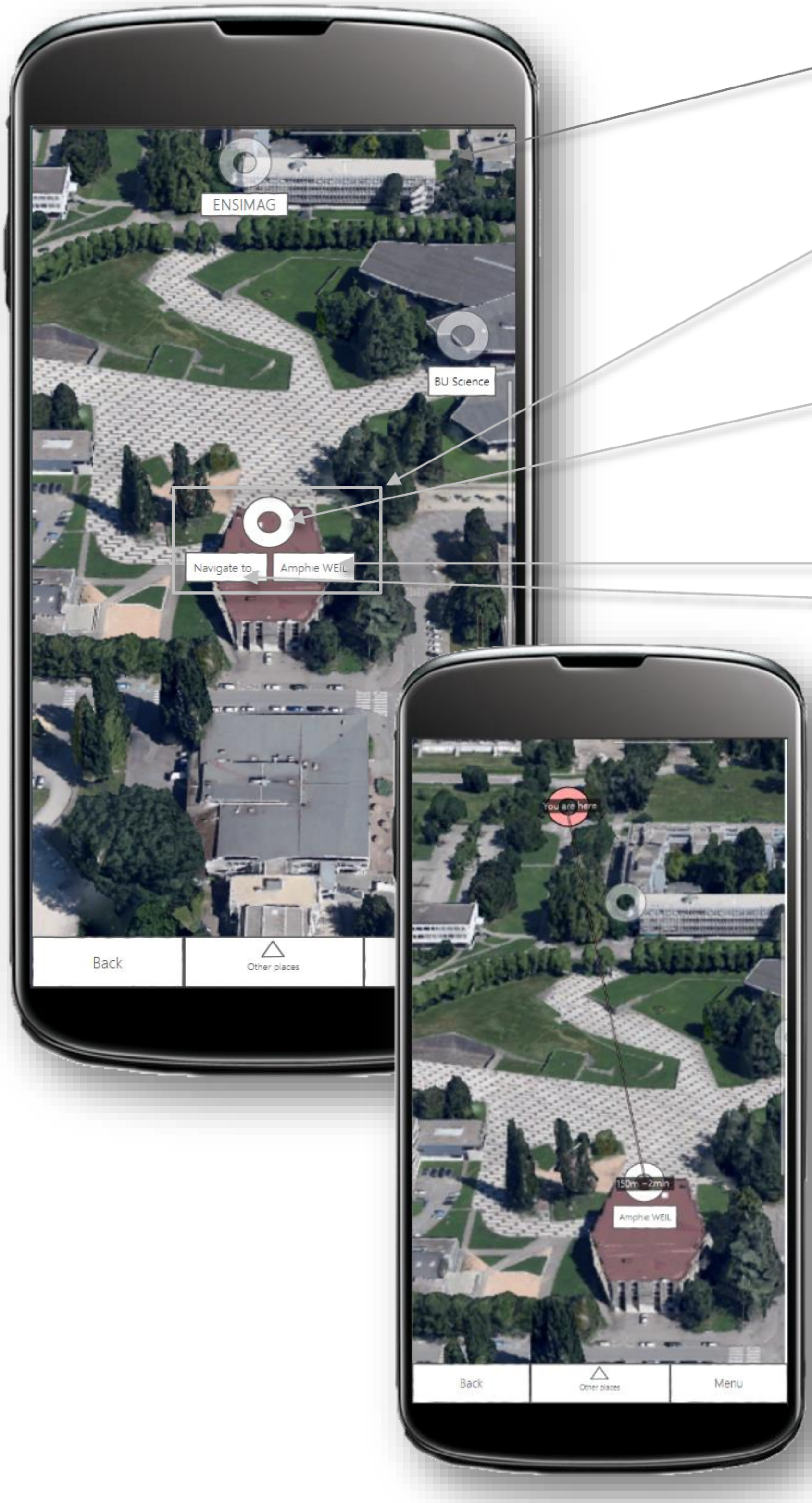
Bug Buster / Permanence

Monday to Thursday 19:00 - 22:00
Friday 19:30 - 21:00
Weekend 19h30 - 21h30

Student at your disposition to help you solv with tour personal computer. During those hour computer are at your disposition.

Administration H01, H01, H02
Monday to Thursday 13h30 - 16h30

The ‘Map’ screen



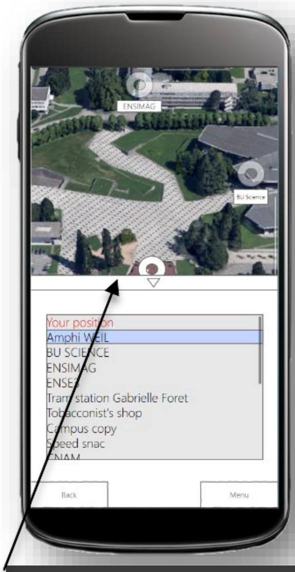
Contrôle : Contener.grid
Scrollable : Yes X and Y
Scalable : Yes, by pinch and zoom
Backgroud Image : Yes(CampusMap.jpg)
Default position : When loading the page and etch time state.selectedPlaceId changes value the image should be centred on place(state.selectedPlaceId).coordinate
/*The screen only display a little part of the all campus map. The campus map should be extracted from the google earth’s 3D view. Many screen should be put together to create a large image in a perspective view. Perspective view is mutch more efficient than a regular hoverhanging map

Controle : custom component
This set of tree user contrôle define a custom component.

Controle : Shape
Transparency : 50% if context.placeId != state.selectedPlace else 100%
Callback : set stat.selectedPlace = Context.palceId

Controle : button
Text : Bind(in) to place(context.placeId).name
Callback : Set state.selectedPlace = context.placeId
Callback 2 : Navigate to the ‘data place’ screen

Controle : button
Is visible : if context.placeId == state.selectedPlace then yes else no
Callback : f(context.placeId)
The f function zoom in or out ant move the map so that tu user position and the context place stand in a same screen. A link is also draw between the two position and the distance and time to reatch by foot are disply on the context circle. The drawing is persistant until the stat.placeSelectedId change. Until that the f() is executed eatch time the Device.gpsCoordinate changes value .



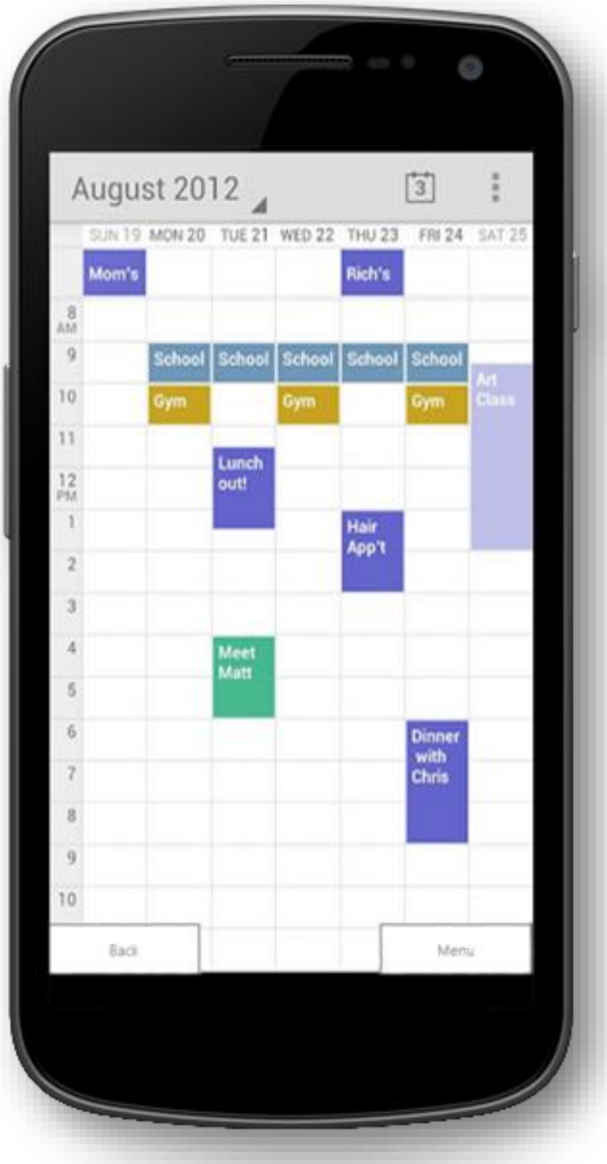
Your position
Amphi WEIL
BU SCIENCE
ENSIMAG
ENSE3
Tram station Gabrielle Foret
Tobacconist's shop
Campus copy
Speed snac
ENAM

/*The only particularity of the drop menu on this screen is that the hitbox of the reduce bar is no more extendet to all the screen. The half top ot the screen continue tu behave like if the menu was not extended.
The textBlockList behave the same way that the one on on the data place screen exept that it got no sorting*/

The ‘Google calendar’ and the ‘360 view’

Google Calendar is a tool that can be used as a stantalone as far as integrated in a third party application. It is set by an .ics file. The ICS data describing sthe schedule of the student are stored in state.ADEparam.

The 360 view is just amultiscale by Y axis, scrolable picture. The source image place(state.selectedPlaceId).image360.


August 2012
3
SUN 19
MON 20
TUE 21
WED 22
THU 23
FRI 24
SAT 25
Mom's
Rich's
8 AM
9
10
11
12 PM
1
2
3
4
5
6
7
8
9
10
School
School
School
School
School
Art Class
Gym
Gym
Gym
Lunch out!
Hair App't
Meet Matt
Dinner with Chris
Back
Menu