

# PEPPER INTELLIGENCE PLATFORM

Humanizing Technologies

PIP 2.1

---

Documentation Version 2.2

## Index

1. General Information .....	2
1.1 Connection .....	2
2. PIP-Login .....	3
2.1 Projects .....	3
3. Editing in CMS .....	5
3.1 Menu Design .....	6
3.2. Zone Settings .....	7
3.3 Button Design.....	8
4. Create Content .....	9
4.1 Create Content – Slideshow .....	10
4.2 Create Content – Slideshow Collection .....	11
4.3 Create Content – Submenu.....	12
4.4 Create Content – Custom Behavior.....	13
5. Content Templates.....	14
6. Dialogs.....	15
6.1 Custom Dialogs.....	15
6.1.1 Custom Dialogs – Dialog .....	16
6.1.2 Custom Dialogs – Proactive.....	16
6.1.3 Custom Dialogs – Attraction .....	16
6.1.4 Custom Dialogs – Solitary .....	17
6.2 Standard Dialogs .....	17
6.2.1 Standard Dialogs – Dialog.....	17
6.2.2 Standard Dialogs – Pro-active .....	18
6.2.3 Standard Dialogs – Attraction.....	18
6.2.4 Standard Dialogs – Solitary .....	18
6.3 Add Triggers to Dialog.....	19
6.4 Dialogs – Allocate dialog to project.....	19
8. Load content on Pepper .....	20
9. Examples of interaction with Pepper .....	21
9.1 The Tablet-Content.....	21
9.2 Animations .....	22

---

# 1. General Information

The application runs on:

H/W: Pepper > 1.7

S/W: NAOqi > 2.5.5

Internet connection: *dedicated Wi-Fi*

Dependencies: /

Charging station used: *no*

## 1.1 Connection

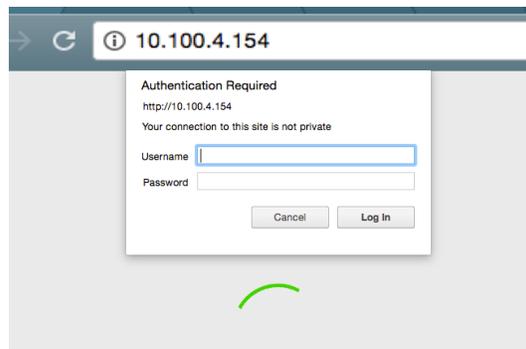
Check the WIFI connection of your robot. To update the content on your robot, it's important, that it is connected to the internet.

To check Peppers WIFI connection, enter the hidden menu, by hitting the Humanizing-Technologies-Logo in the right bottom corner of the display. Enter the password "1234". Go to the "Robot Settings" and then follow the instructions further down in the description of the remote access.

CARE: Remote access is only available, if your PC and Pepper are in the same network!!!

### Remote access to the hidden menu:

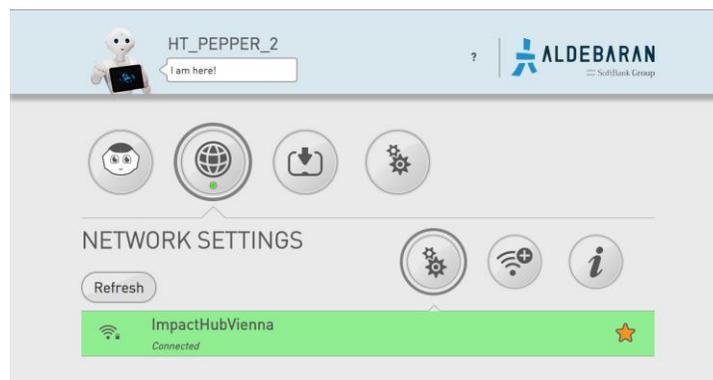
Push Pepper's chest-button underneath the tablet. Pepper will say the IP address.



Write the IP address in your browser window.  
(here just an example of IP address)

The page will ask you for username and password:

Username: nao  
Password: ht\_pepper  
Click on the sphere to go to network settings.



If Pepper is at the wrong network click on "refresh" and choose your right network.

## 2. PIP-Login

Open the website: <https://pip.humanizing.com/> in Chrome.  
Login with your username and password.

If you don't have your login information yet, please contact the Humanizing-Technologies Support: <https://support.humanizing.com>

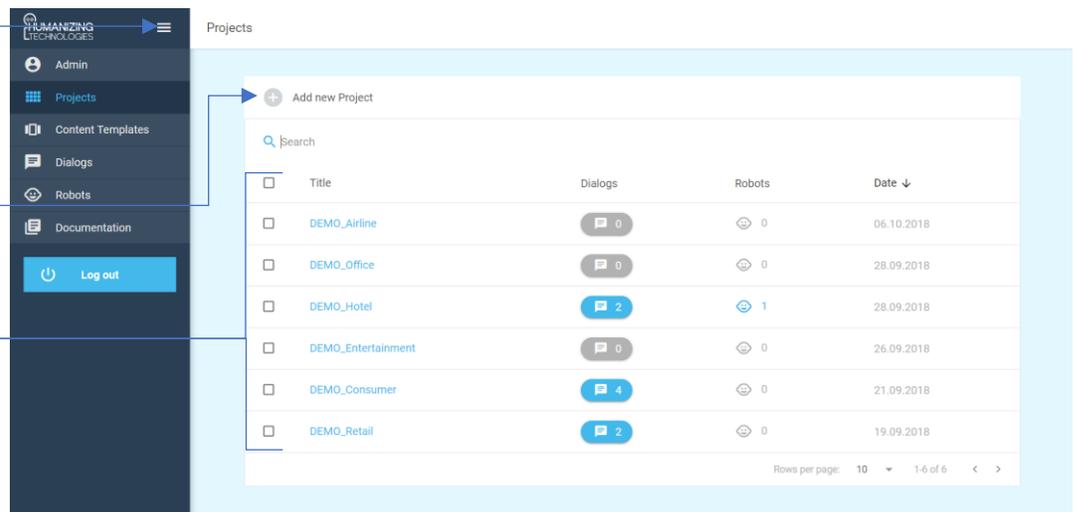
### 2.1 Projects

After you logged in successfully you will see this screen:

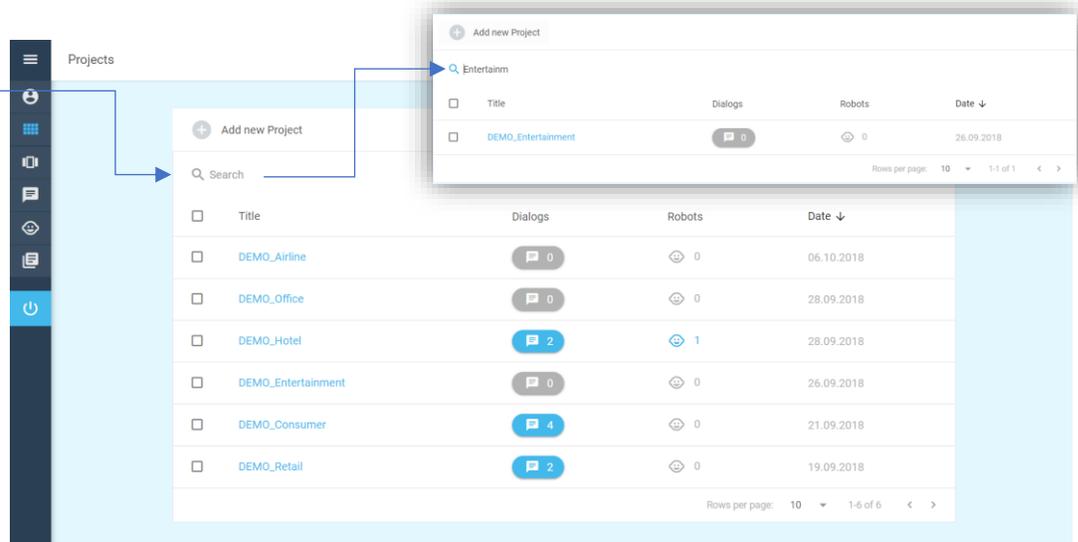
First you should close the navigation bar for more space

Click here for creating a new project

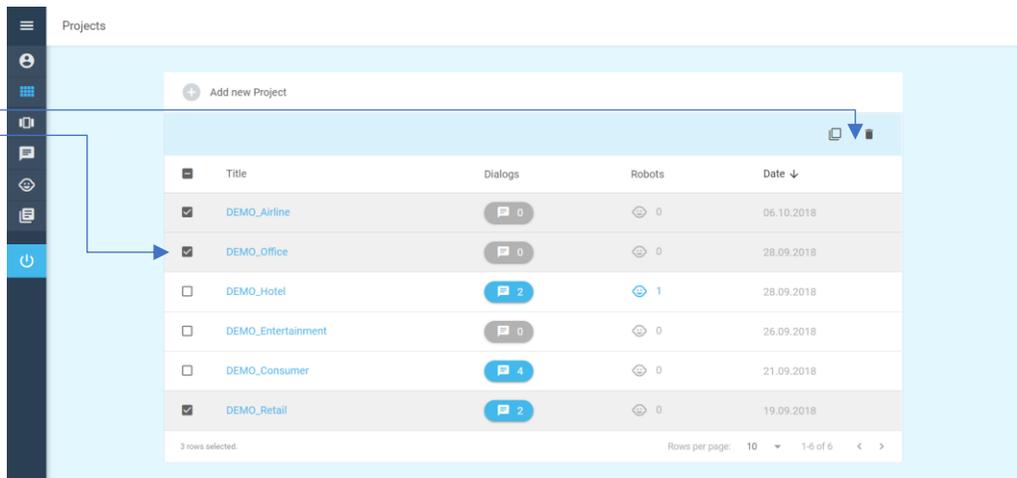
If you already created projects for Pepper you will find all your projects here



Use the search field for searching your project

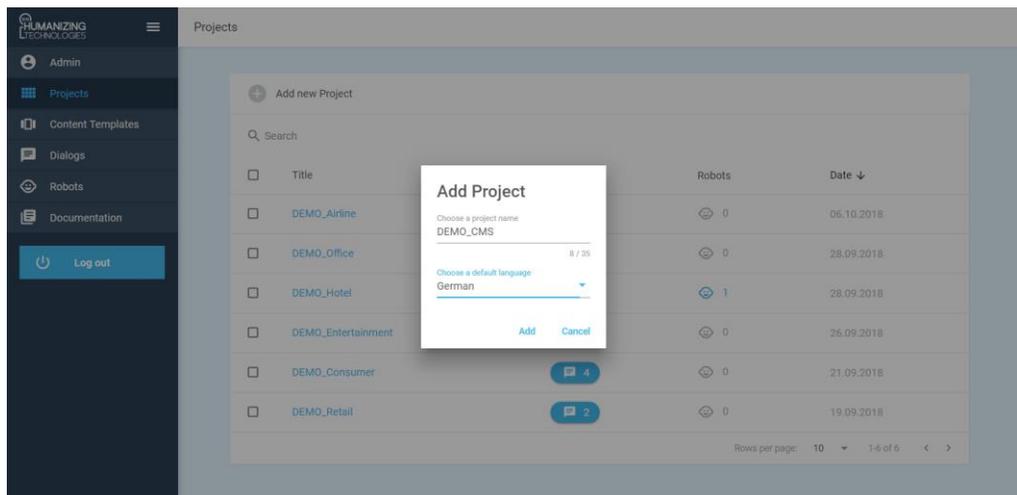


If you select one or more projects, you can copy or delete them



In this example we click on "Add new Project":

Name your project and choose the default language\*  
Finally click on "Add"



\*default language is the language Pepper will speak first. E.g. we select English, so Pepper will speak English after a restart. From here you can select another language.

After you clicked on "Add", the project screen pops up automatically and you can start editing your new project!

### 3. Editing in CMS

If you want Pepper to speak another language you need to translate your content

Click here to change the project language

These Settings are explained at point 3.1

The Zone Settings are explained at point 3.2

Edit the default language. By creating the project, you have already selected German as the default language. Pepper will use this language as default after updating her content or rebooting.

The screenshot displays the Pepper CMS interface with several panels and callouts:

- Content Panel:** A grid of content elements, each with a "Choose content element" button. A callout points to the top right corner where the language is set to "English".
- Archive Panel:** A section titled "Archive" with a sub-section "All" and the message "No archived contentElements".
- Settings Panel:** A configuration area with options for background image, background color (hex: #55,255,255,1), full screen logo upload, font family (Roboto), and theme color type. A callout points to this section.
- Pepper's Zone Settings Panel:** Contains three zones: Proactive Zone (< 1.5m), Attraction Zone (1.5m - 2.5m), and Solitary Zone (> 2.5m). Each zone has a description and a "Trigger-Time" slider. A callout points to this section.
- Language Settings Panel:** Includes "Choose default language" (set to English) and "Choose active languages" (set to English). Callouts point to these settings.
- Language Selection Popups:** Two floating windows show language selection options: one with "English", "German", and "Italian" (German is selected), and another with "English" and "German" (both are selected).

Choose the active language(s) of your project. Active languages can later be selected by customers interacting with the robot. E.g. in this situation pepper will be able to speak German and English (you can only see the selection if you have any content)

### 3.1 Menu Design

How does your project look like on Pepper's screen? Find out by clicking on the preview button.

If you want a title, write it down here

Click on the blue pencil to design the button icon (go to 3.3)

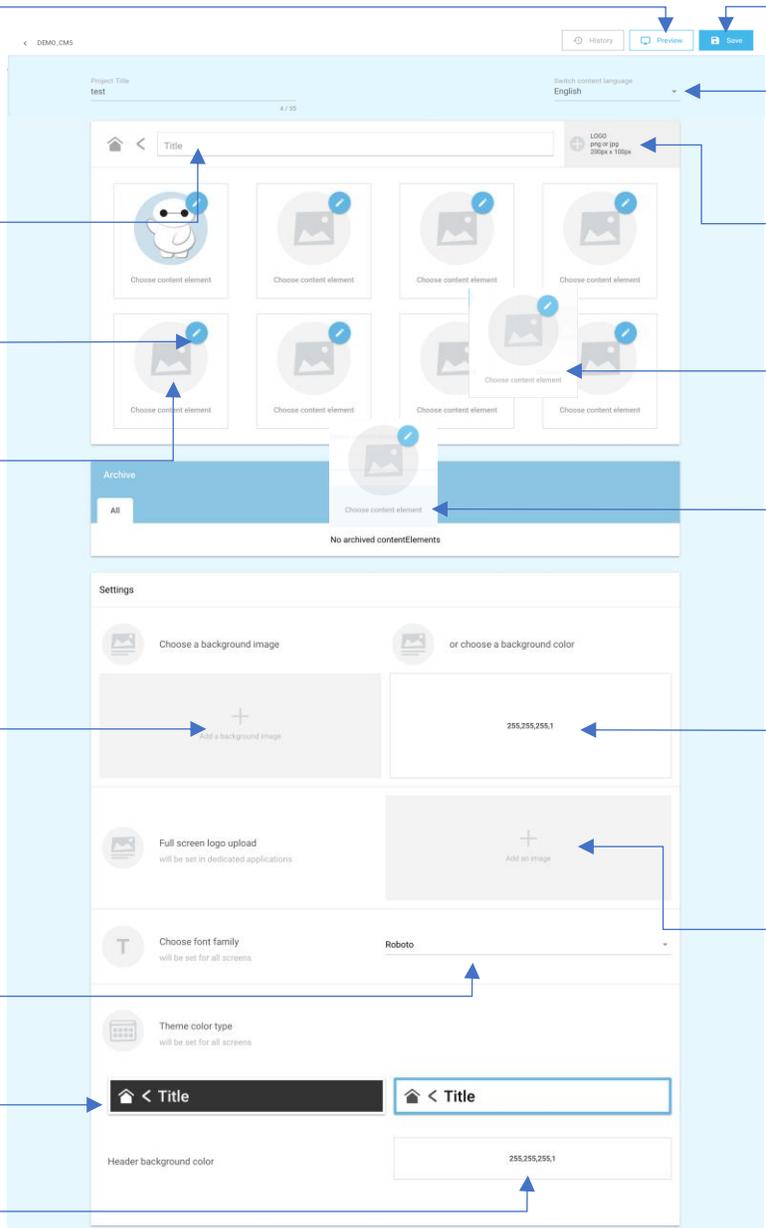
Click on the middle of the button to add content (go to

For adding a background image behind the buttons click here (use JPG, PNG or GIF files and your file must be smaller than 1MB and need a size of 1280x700px)

Select your favourite font here

Invert the color header-bar of the menu

Change here the color of the header



Do not forget to save your changes!

Double-check if you are editing in the right project

Click here to upload your logo (use only JPG, PNG or GIF)

You can rearrange the order of your buttons by drag and drop

Drag your buttons here to store them temporary

If you want a background color behind the buttons click here, choose one and save your project

Here you can add a fullscreen-logo (need a size of 1280x 800px), which is visible during most behaviors and if you tap of the small logo in the upper right corner

### 3.2. Zone Settings

The Zone Settings are important for the different dialog types (they're explained at point 6.)

Pepper recognizes customers within these three areas.

Pepper starts saying or doing something depending on the zone a person or a movement is detected in

You can modify the timings of each zone when Pepper should interact with your customer

The screenshot displays the 'Pepper's Zone Settings' interface. It is divided into two main sections: 'Zone Settings' and 'Language Settings'.  
**Zone Settings:** This section contains three rows, each representing a different zone type. Each row includes a circular icon, a title, a brief description, and a 'Trigger-Time' slider. The zones are:  
1. **Proactive Zone (< 1.5m):** Description: 'Within this zone the Proactive dialogs are triggered by Pepper to interact with customers.' Trigger-Time slider is set to 10 seconds.  
2. **Attraction Zone (1.5m - 2.5m):** Description: 'Within this zone Pepper recognizes movements and can attract customers to get closer.' Trigger-Time slider is set to 10 seconds.  
3. **Solitary Zone (> 2.5m):** Description: 'If there is no movement in the first two zones, Pepper will trigger the solitary sentences.' Trigger-Time slider is set to 10 seconds.  
**Language Settings:** This section has two rows:  
1. **Choose default language:** Description: 'Project will start with this language'. The dropdown menu is set to 'English'.  
2. **Choose active languages:** Description: 'Project will export those languages'. The dropdown menu is set to 'English'.  
Each zone and language setting has a 'Default Settings' dropdown menu to its right.

You can use the default settings or set your own ones!

This close-up shows two dropdown menus. The top one is for 'Default Settings' and the bottom one is for 'Custom Settings'. Both menus are currently open, showing the selected option and a list of alternatives. The 'Custom Settings' menu is highlighted with a blue arrow pointing to it from the text below.

With the Custom Settings you can define your individual trigger-time

### 3.3 Button Design

After clicking on the blue pencil, this window will pop up.

There are two options. You can create a Button Design with a title, title color and a background color or you upload a finished design.

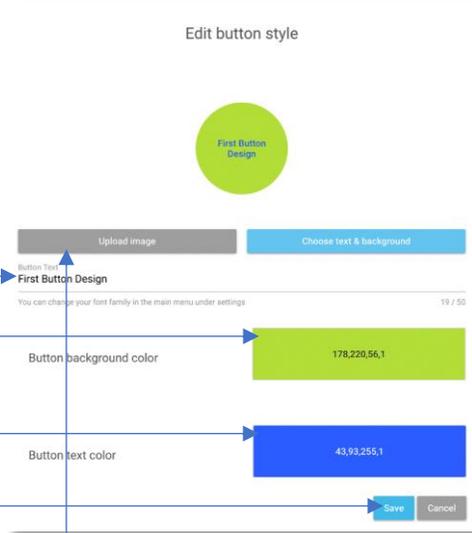
First Option:

Enter the button title here

Select the button color here

Select the title color here

Click "Save" to close the window

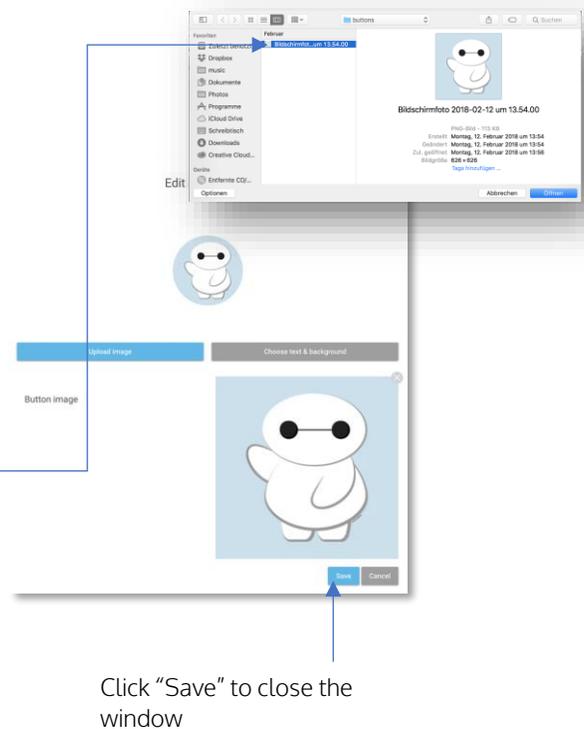
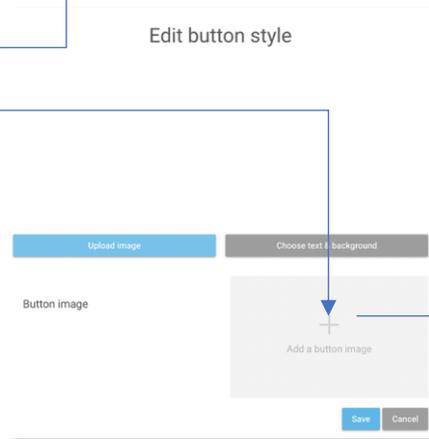


Second Option:

click on "Upload Image"

Then click on "Add a button image" and select one image of your library

You do not need a round picture because CMS changes the shape. Your picture should be a square and a JPEG, GIF or PNG.

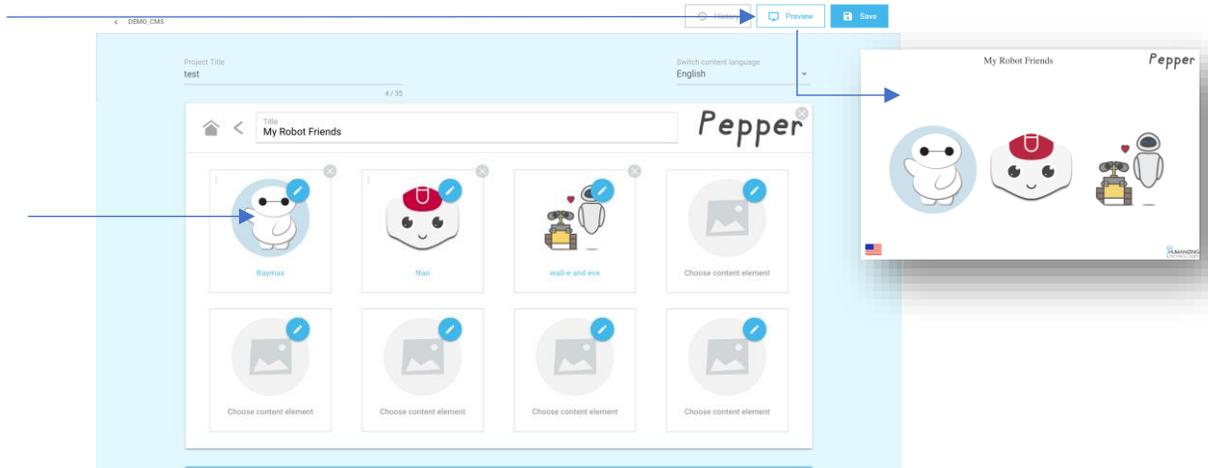


## 4. Create Content

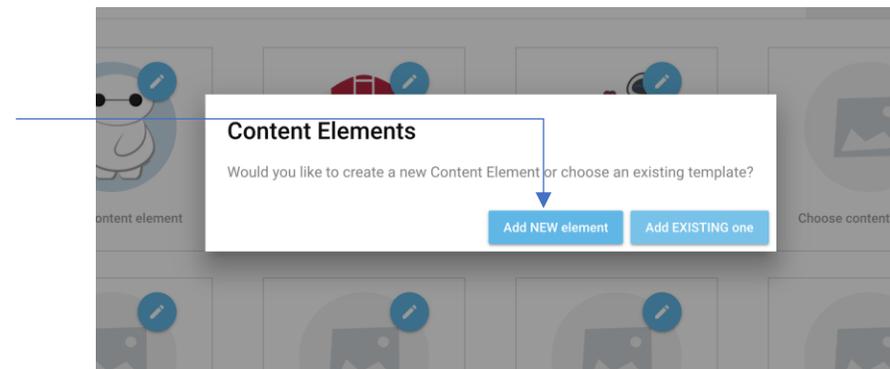
After you have finished your button design, you can take care of the content:

If you want a preview of your design and content, click on "Preview"

Click at the middle of the button you want to fill with content

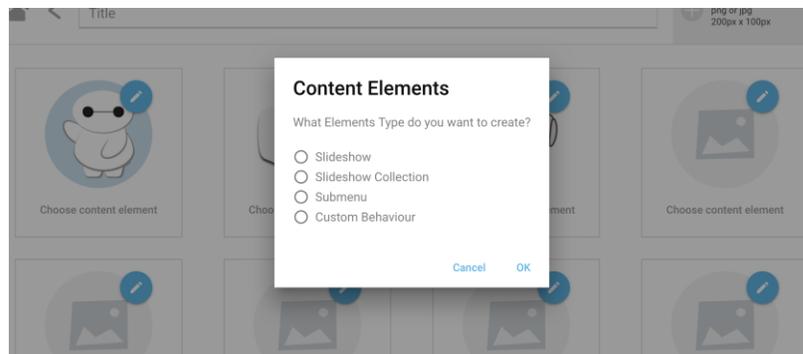


To create new content, click on "Add NEW element"



Choose the type of the content

1. Slideshow (4.1)
2. Slideshow Collection (4.2)
3. Submenu (4.3)
4. Custom Behavior (4.5)



## 4.1 Create Content – Slideshow

Name your slideshow

Name the slide of the slideshow.

Upload a video or image that will be displayed during Pepper’s speech

Write down Pepper’s speech.

If you created your first slide click “Add element” to create the second slide or a break

Pepper can do a short break so that the listener can digest the content

Reorder the slides with drag and drop

DEMO\_CMS

Slide title: New Slideshow

Slide title

Add image / video (jpg, png or gif / mp4) max 1 / 5 MB

Script for Pepper to speak

Add element

Add element

Content Categories

Slide Break

DEMO\_CMS

Slide title: Baymax

Script for Pepper to speak: this is my huge fluffy friend Baymax.

Break Break duration: 3sec

Slide title: Baymax and his friends

Script for Pepper to speak: Baymax is always in good company

Slide title: Baymax is always in a good company.

Slide title: The red and purple protective armor

Slide title: The red and purple protective armor

Script for Pepper to speak: In his superhero form, he is upgraded with red and purple protective armor. While in this form, he has the ability to fly with the aid of two foot-equipped rocket thrusters and back-mounted wings and can fight thanks to the reinforced durability the armor offers.

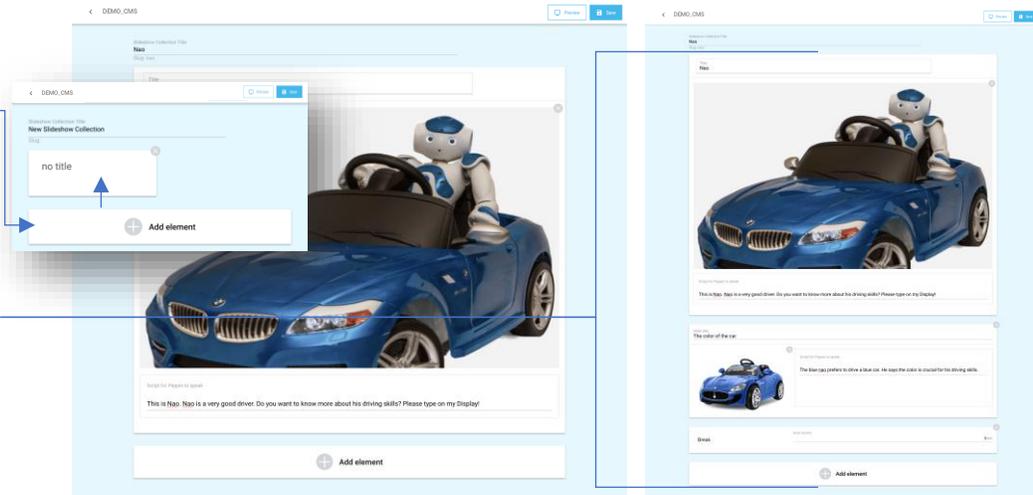
Script for Pepper to speak: In his superhero form, he is upgraded with red and purple protective armor. While in this form, he has the ability to fly with the aid of two foot-equipped rocket thrusters and back-mounted wings and can fight thanks to the reinforced durability the armor offers.

## 4.2 Create Content – Slideshow Collection

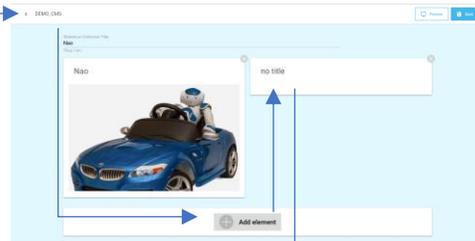
If the listener in front of Pepper wants to hear more about the subject, he must tap on Pepper's screen and Pepper plays the entire slideshow. Otherwise Pepper shows only the first slide of every slideshow.

First slideshow of our slideshow collection: Click on plus "add element" and then on "no title"

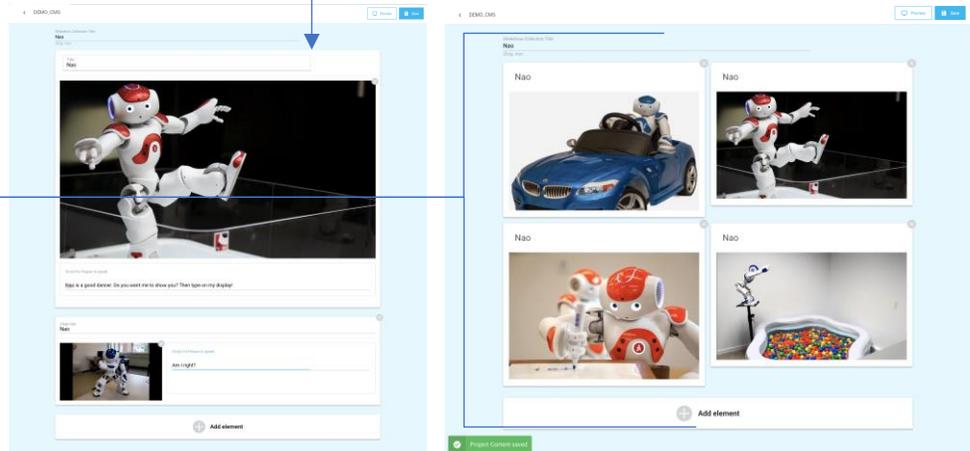
In the next step we will create a slideshow as usual. (hint: Let the listener know, that he can tap on the display to hear more)



Now we go back to the slideshow collection and repeat the process



If nobody taps on Pepper's display, Pepper will show only the first slides of the slideshows in your slideshow collection



### 4.3 Create Content – Submenu

We create a submenu like the menu before

You can fill these buttons with a slideshow, a slideshow collection or a custom behavior

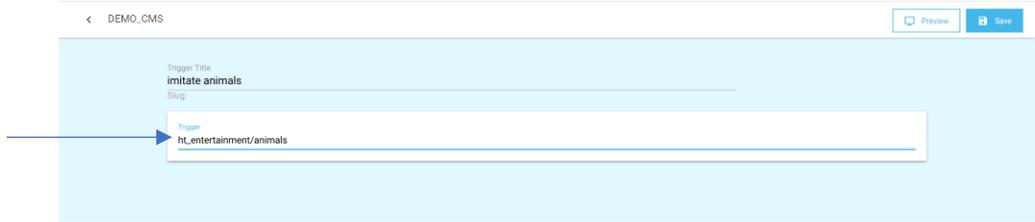
What should Pepper say if someone opens the submenu?  
Write it down here

The screenshot shows a CMS interface for creating a submenu. At the top, there are tabs for 'History', 'Preview', and 'Save'. The main editor area is titled 'wall-e and eve' and contains a grid of content elements. The first row has 'Wall-E', 'Eve', and two 'Choose content element' buttons. The second row has four 'Choose content element' buttons. Below the grid is an 'Archive' section with 'All' and 'No archived contentElements'. The 'Intro' section has a text input field with the placeholder text 'Do you want to know more about Wall-E or Eve? Chose Wall-E or Eve on my Tablet!'. The 'Settings' section includes options for 'Choose a background image' and 'or choose a background color', a 'Theme color type' dropdown, and a 'Header background color' input field. A preview window on the right shows the submenu with circular icons for Wall-E and Eve.

## 4.4 Create Content – Custom Behavior

You can use the custom behavior to start an application. In this case we will start the Animals-App. So, if someone taps on this button Pepper will start the animals-App.

Here you can set a trigger for starting an application. E.g. ht\_entertainment/animals



List of Humanizing App-Triggers:

*(beware: Not all will work for you! It depends on which Software-packages you bought)*

### Entertainment

My animals  
ht\_entertainment/animals

On vacation  
ht\_entertainment/vacation

Dance with me  
ht\_entertainment/dance

Guess my pose  
ht\_guess\_my\_pose/behavior\_1

Send Pepper greetings  
ht\_send\_pepper\_greetings/behavior\_1

TicTacToe  
ht\_tictactoe/behavior\_1

Pepper presentation  
ht\_pepper\_presentation/behavior\_1

Memory  
ht\_memory/behavior\_1

Selfie time  
ht\_entertainment/selfie

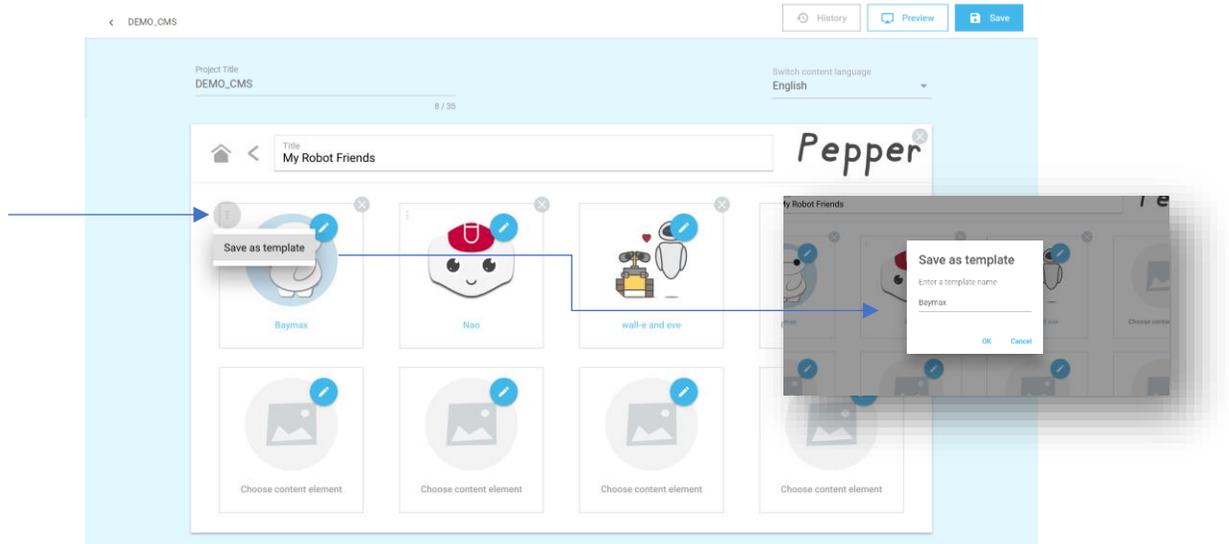
### Triggering your own Pepper Apps:

You can start your own Pepper apps by adding a trigger for it. The trigger should be written in the following form: <ApplicationID>/<BehaviorID>.

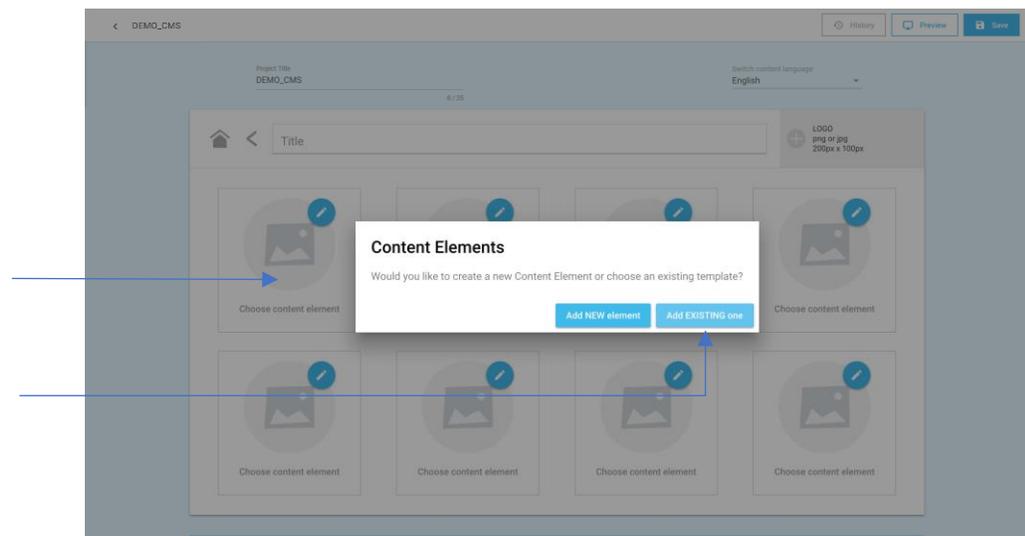
## 5. Content Templates

It's possible to save your slideshows, slideshow collections and custom behaviors to reuse it in another project.

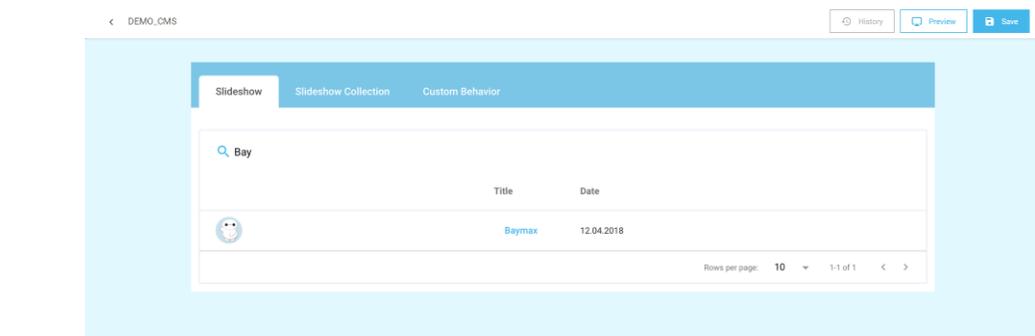
Click on the three points if you want to save your content. In this case we want to save the Slideshow Baymax.



In our second project we want to use the Baymax-Slideshow from our first project. Click in the middle of the button to fill it with content. But now click on add existing one



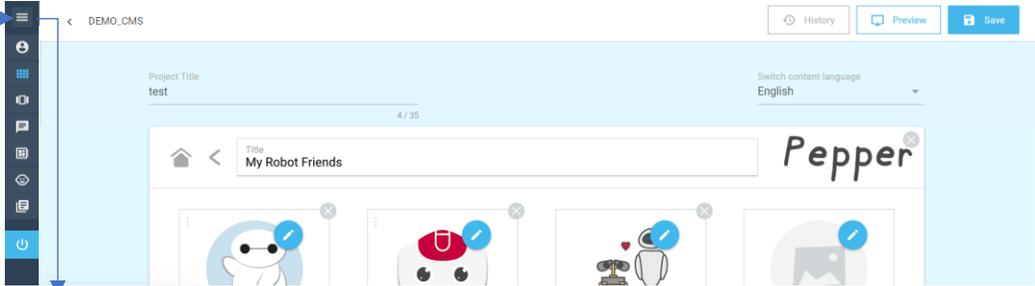
The database with all saved content will be opened. Now we can search in the directory Slideshow for Baymax.



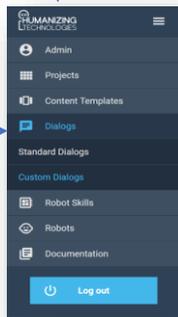
## 6. Dialogs

Finally, Pepper needs a dialog.

Click here to open the navbar



And click on "Dialogs"



In this area, you can organize your own dialogs, as well as the ones from Humanizing-Technologies. This includes the creation of your very own individual dialogs for Pepper.

### 6.1 Custom Dialogs

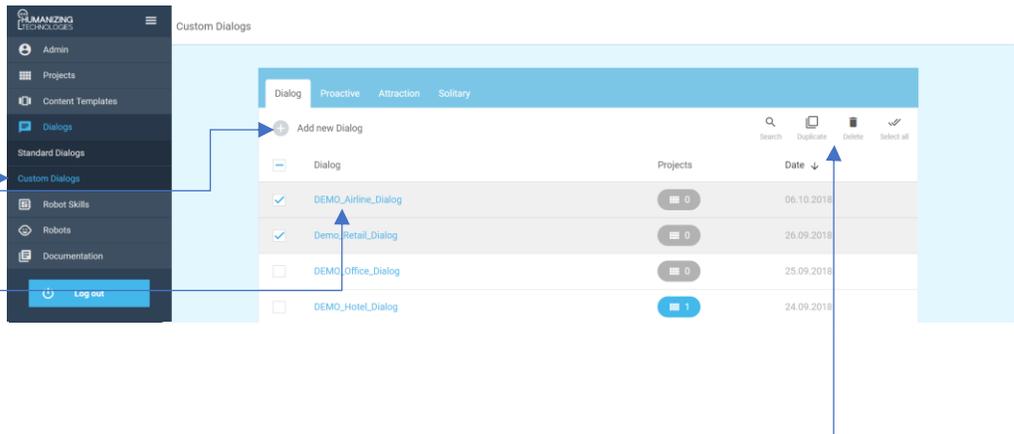
Create your own dialogs!

If you click on "Dialogs", the option "Custom Dialog" opens automatically

Click here to create a new dialog

To edit a dialog, click on the name of the dialog

Select one or more dialogs to copy or delete them



#### Dialog species:

Dialog: Human can ask Pepper something and Pepper give an answer

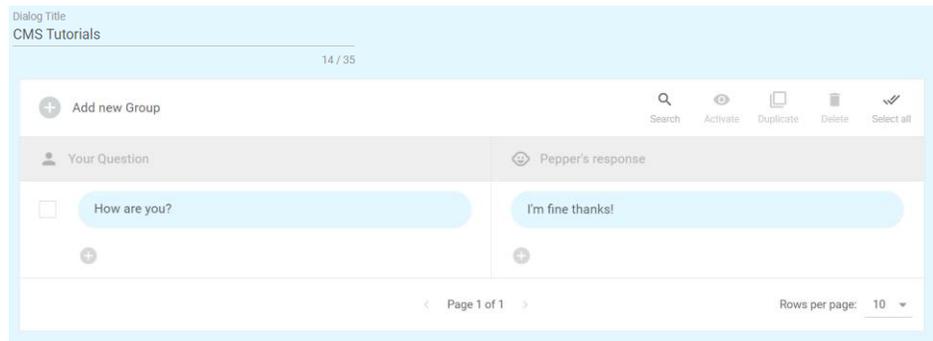
Proactive: Pepper will ask a question, wait for a human-answer and give an answer

Attraction: Pepper recognizes movements and can attract customers to get closer.

Solitary: If there is no movement in the first two zones, Pepper will trigger the solitary sentences.

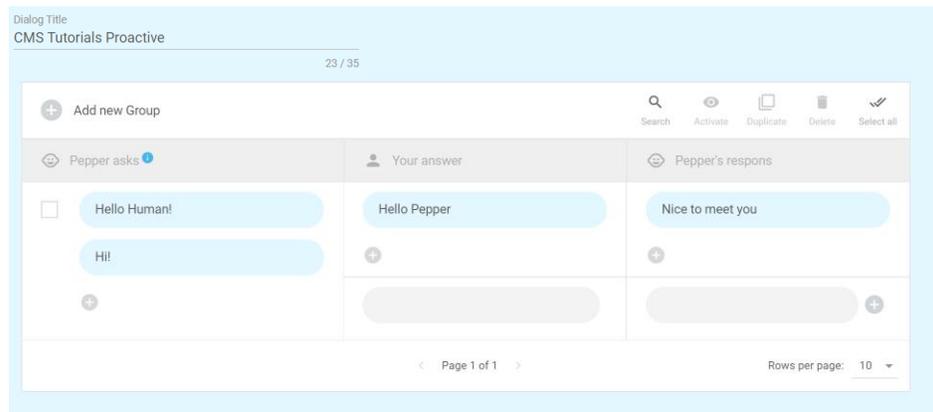
### 6.1.1 Custom Dialogs – Dialog

What can a human ask Pepper? Write down possible question on the left side and possible answers from Pepper on the right side



### 6.1.2 Custom Dialogs – Proactive

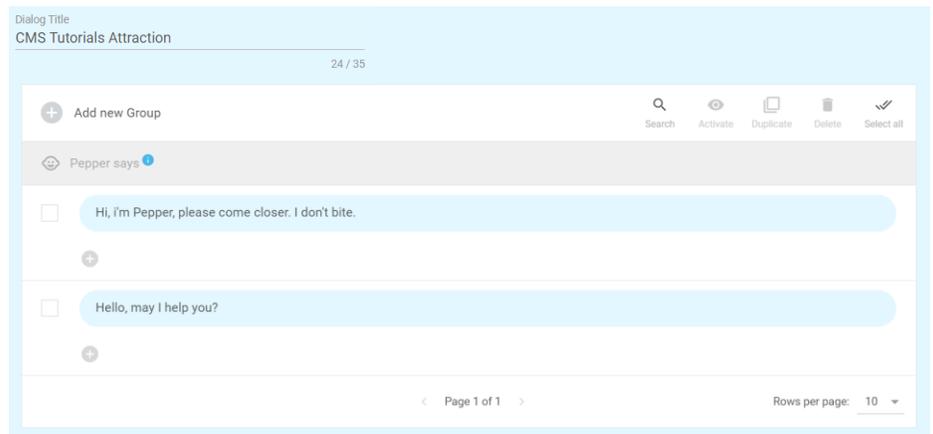
Pepper begins the dialog. Write down what Pepper should say if a person stands in front of Pepper



Hint: The order is important. If the human says the first answer Pepper says the first answer too

### 6.1.3 Custom Dialogs – Attraction

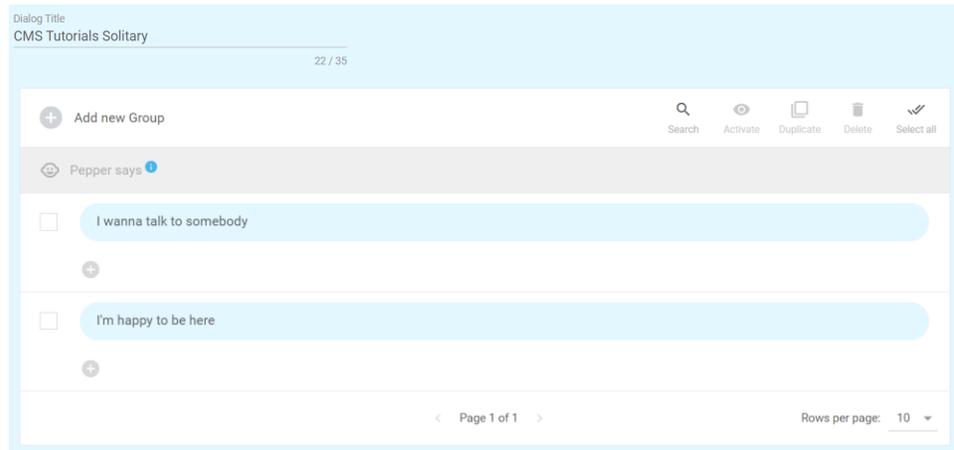
If Pepper recognize a movement or a person in 1.5 – 2.5 meters away, Pepper can say something, to keep the attention and attract that person



Here a response isn't expected, cause if the human come closer to Pepper, the proactive zone is entered and the robot switches automatically to the proactive dialog or the "normal" dialog.

## 6.1.4 Custom Dialogs – Solitary

If there's no movement or person spotted in the Proactive or Attraction zone, Pepper will trigger the Solitary sentences to get more attention



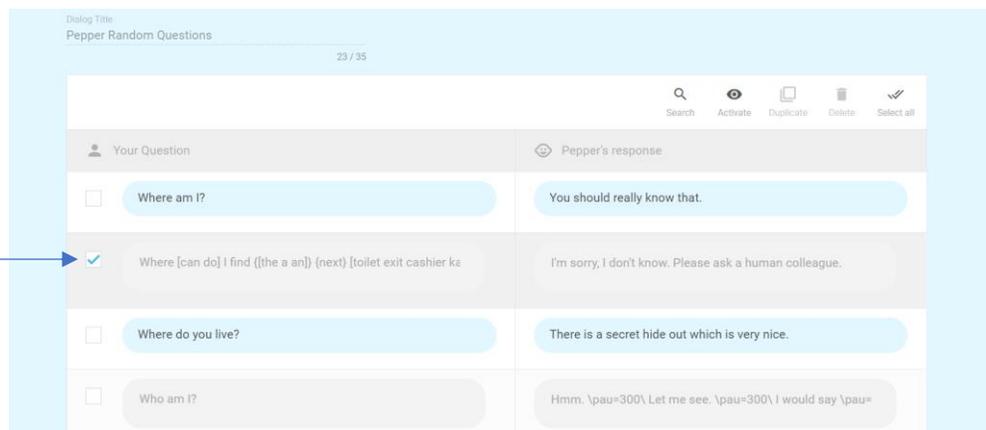
Hint: mostly there are more than one way to ask or to answer. You can write down the questions and answers in different ways. It's also possible to write down more than one Pepper answer or question. Pepper will choose an answer or question randomly.

## 6.2 Standard Dialogs

Standard Dialogs are predefined dialogs from Humanizing-Technologies. They contain many basic questions and answers. For example, greetings or compliments. They save time while creating own dialogs.

### 6.2.1 Standard Dialogs – Dialog

Select the predefined questions you want Pepper to say. (Pepper will not say the inactive ones)

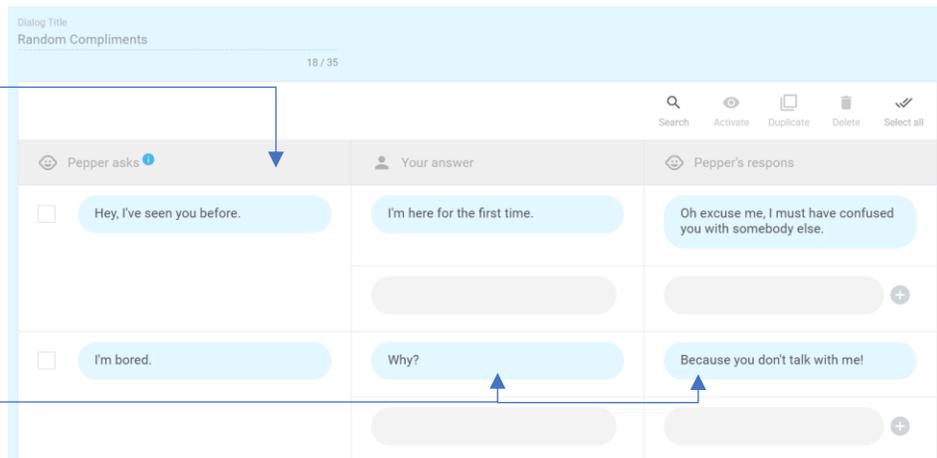


The unselected ones are grey and the selected blue

## 6.2.2 Standard Dialogs – Pro-active

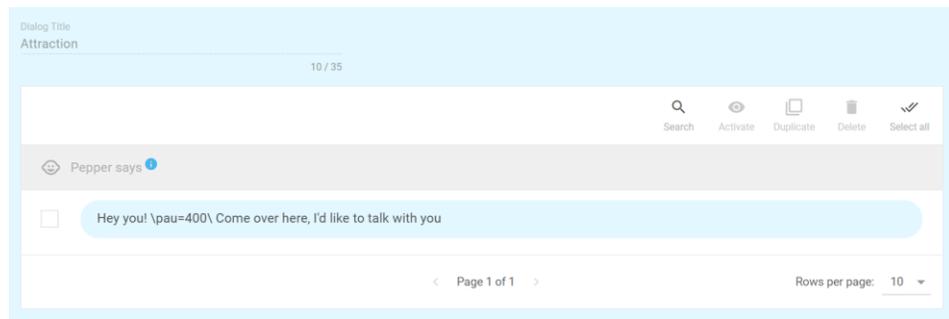
The question Pepper asks randomly is set and can't be edited

But you can add own answers and responses to it



## 6.2.3 Standard Dialogs – Attraction

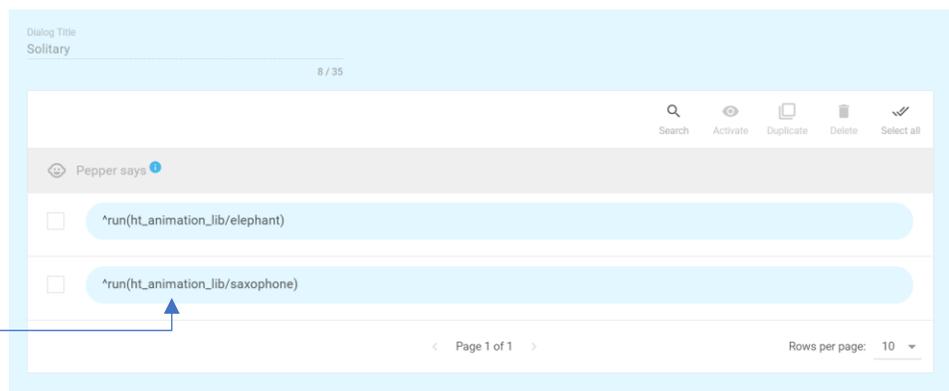
Use the predefined sentences to attract people and get their attention



## 6.2.4 Standard Dialogs – Solitary

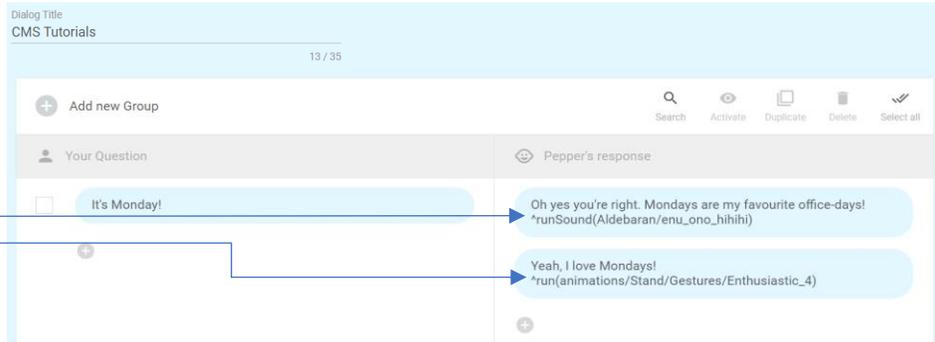
The predefined sentences are a good basis for your own ones!

Here we set some triggers to start an animation through dialog (explained at point 6.3), so - instead of just speaking - Pepper tries to get more attention by doing animations



### 6.3 Add Triggers to Dialog

You can add triggers to your dialog. It's possible to start sounds and animations through dialog. Just add one of the triggers to Pepper's answer



You'll get the whole list of triggers from Humanizing Technologies.

### 6.4 Dialogs – Allocate dialog to project

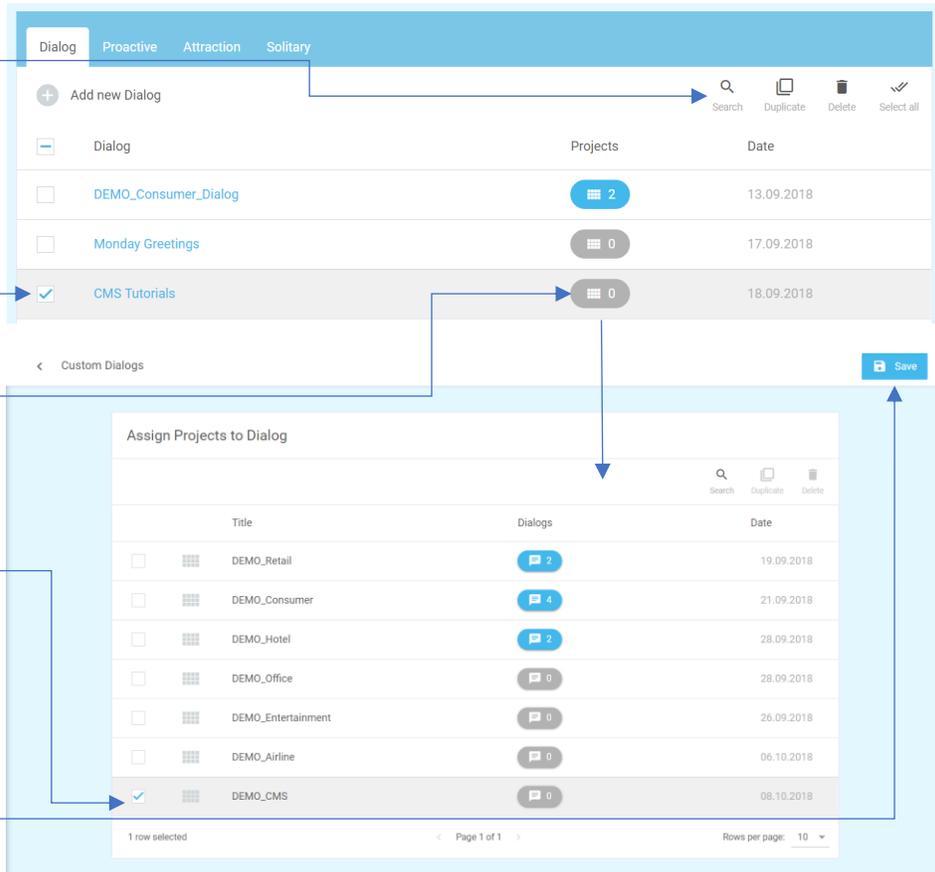
Use the search field for searching your dialog

Select one or more dialogs you want to allocate to the project

To allocate your dialog to your project click on the project button

Select the projects you want to add the dialog to. It's possible to allocate one dialog to more than one projects.

Don't forget to save your



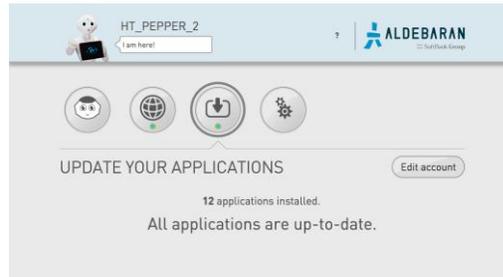
Now the project button is blue and there is the number one. That shows us the dialog is already



## 8. Load content on Pepper

### Load content on Pepper for the first time:

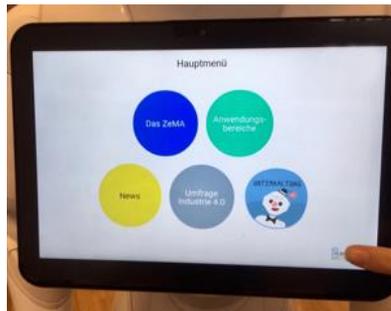
Go to the robot settings page at your browser window (see point 1. "Connection").  
Click on the third button. (Arrow Icon)  
And then on "update "



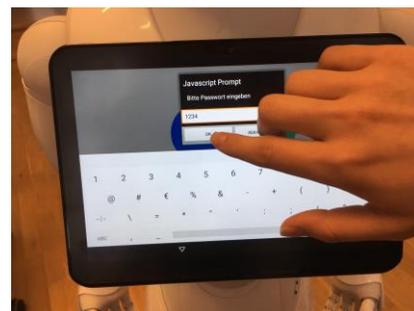
Your screen should look like this:

### Upload the content for the second time:

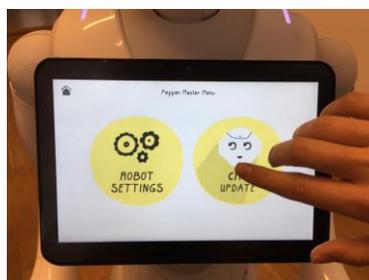
Open the hidden menu:



Type on the HT-Logo in the right bottom corner of the display



the password is 1234



Type on the button „CMS update“



If this doesn't work try the Jesus-Grip\*

\*Jesus-Grip: Lay down your Hand on Peppers forehead and wait until pepper say: plop.

## 9. Examples of interaction with Pepper

Upload your content on Pepper.

### 9.1 The Tablet-Content

Pepper's tablet shows up your CMS content. In our example the tablet-screen looks like this:

You can tap on one of the bubbles. What happens then is depending on your content (in our example, it opens a submenu)

By clicking on your inserted logo in the upper right corner, you can open your full-size logo

With the Home-Button you get back to the main menu. Furthermore, you can exit every running behavior with it

Use the "Arrow"-Button to skip back to the site shown before

Change the language here

Click on our logo to get to the hidden menu

## 9.2 Animations

### Tickling:

Pepper is ticklish. By touching Pepper's head, you can activate the animation.

Furthermore, this animation interrupts Pepper's face detection, because Pepper shakes the head and looks down. After that, Pepper looks up again and restart the face detection.

### Pepper Five's:

All "Pepper five's" (= high five, low five, hug, shake hands, fist bump) work in the same way. Pepper notices your touch through gyro-sensing. This sensor is in the upper body and it's necessary that your touch is recognizable for Pepper.

To clarify that: If you do a high five, you can also push the upper body a slightly bit backwards. That works too!

Don't be too timid, but even don't hit Pepper or do something too roughly, that might hurt Pepper. Just experiment with that and you'll get a feeling for it.

Pepper waits a few seconds if somebody replies to the animation and animates the user. If still nothing happens Pepper exits the behavior.

*Notice:* Pepper is very careful while moving and doesn't want to hit you. If somebody stands too closely to the robot, it's possible that Pepper does very small movements or even doesn't move anyway. Give Pepper some more space and try again.

### Anomalies:

If the animation's sound (e.g. in the dancing animation) doesn't play simultaneously to the animation, try the Jesus-grip. With that you restart the tablet-software and it should fix the problem.