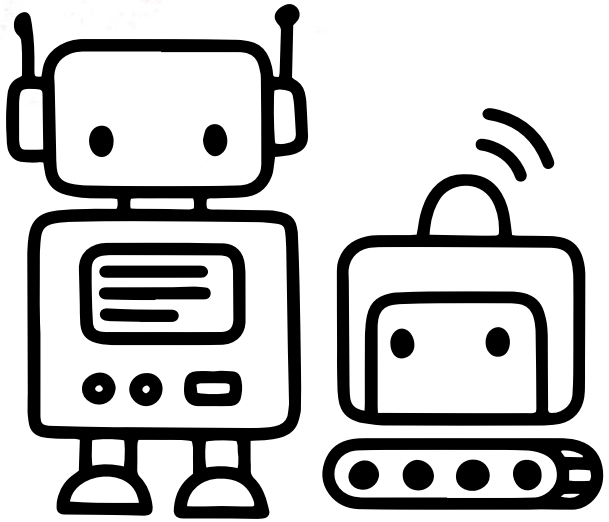
USEK
HOLY SPIRIT UNIVERSITY OF KASLIK

FriendBot



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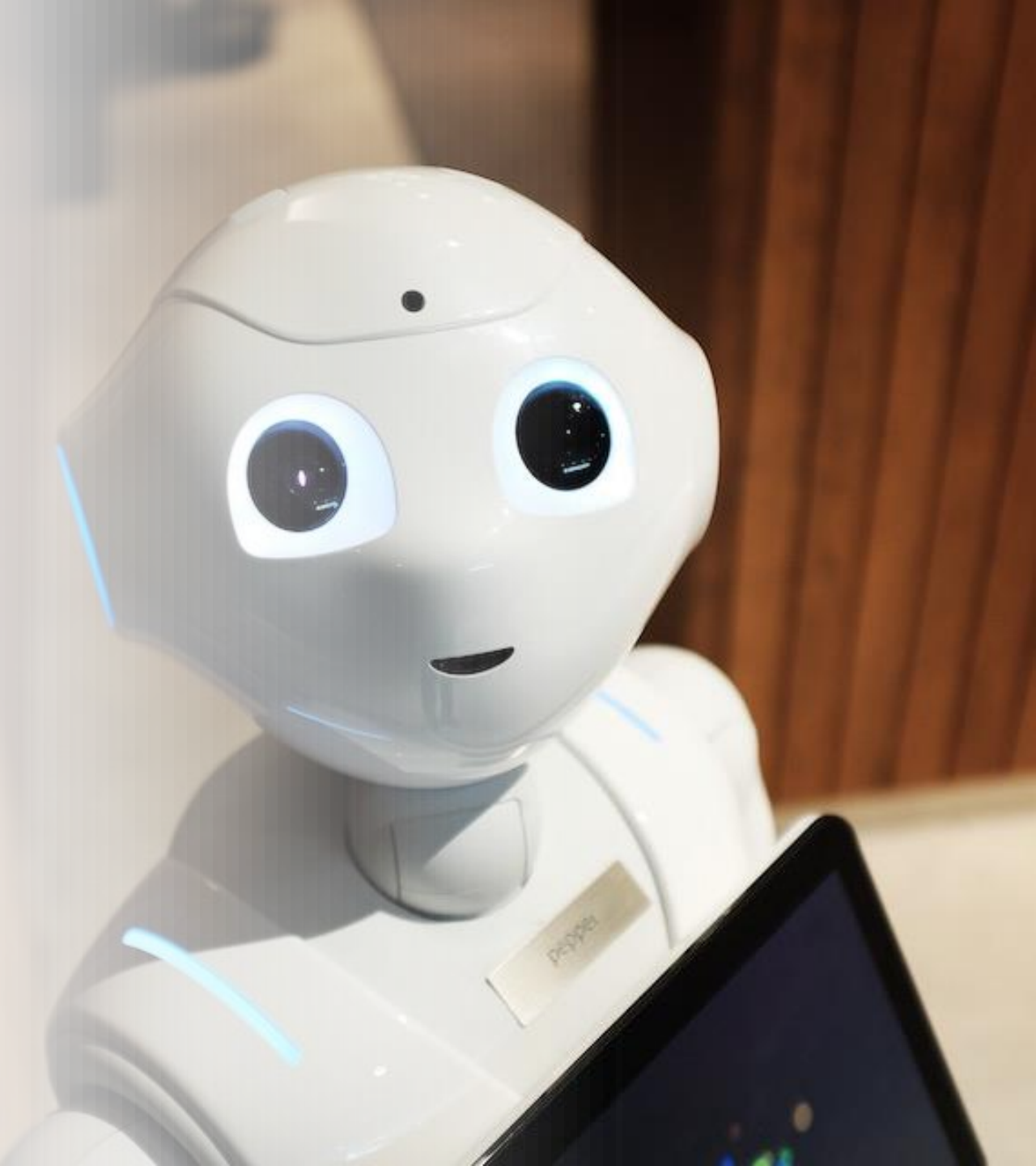
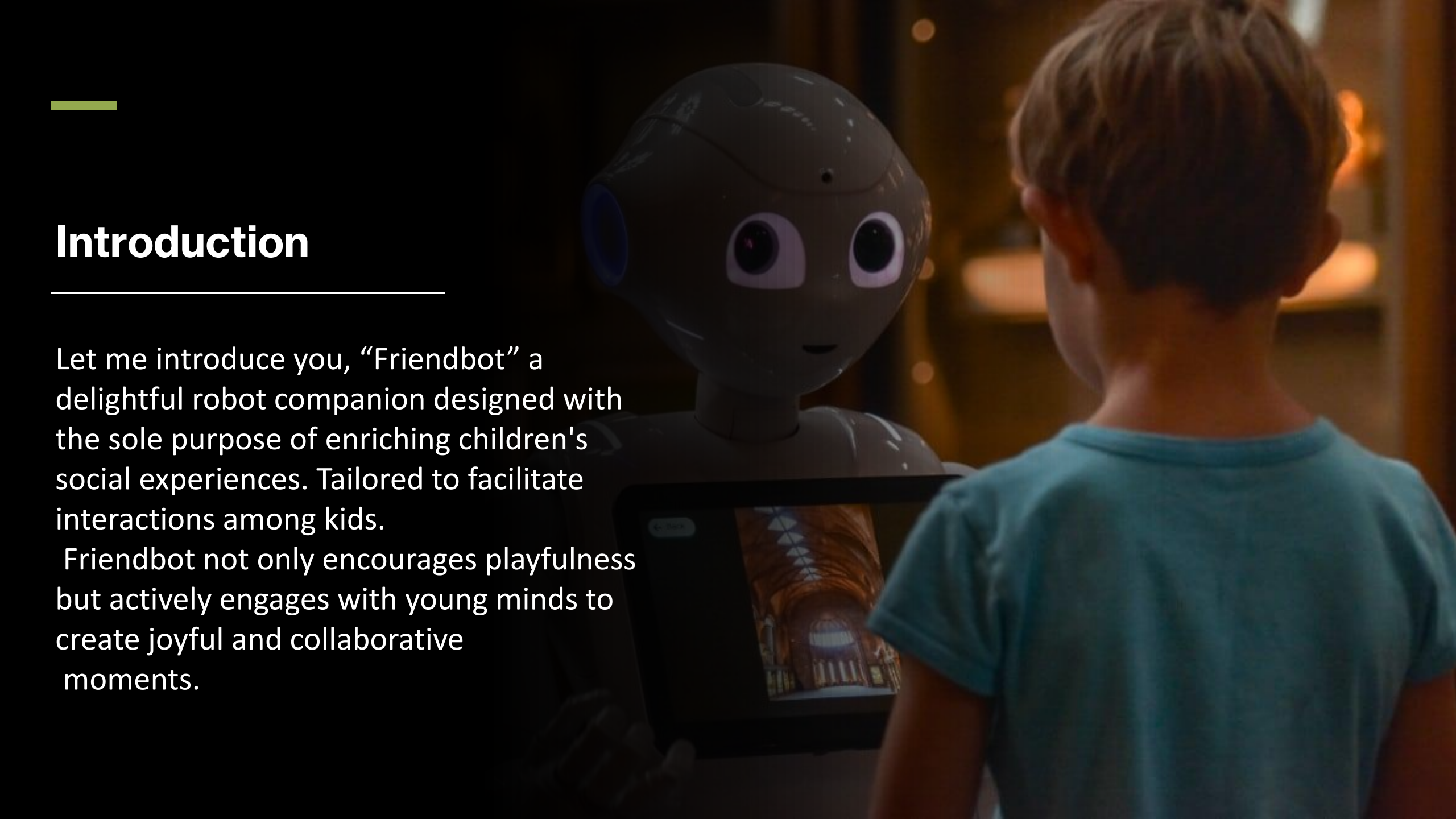


Introduction

Let me introduce you, “Friendbot” a delightful robot companion designed with the sole purpose of enriching children's social experiences. Tailored to facilitate interactions among kids.

Friendbot not only encourages playfulness but actively engages with young minds to create joyful and collaborative moments.

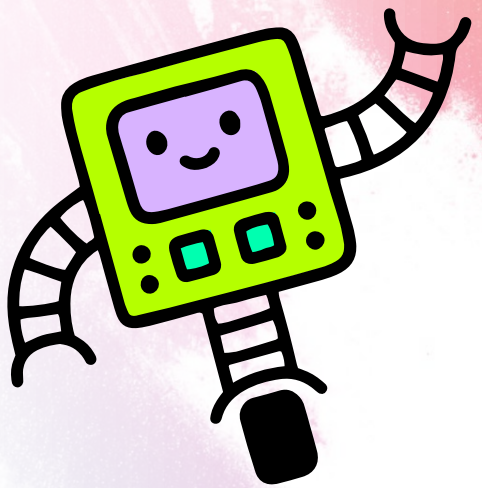


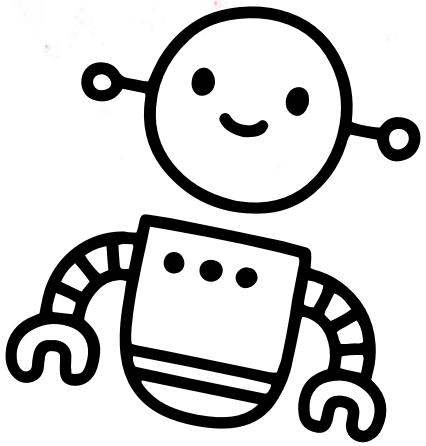
Use Cases:

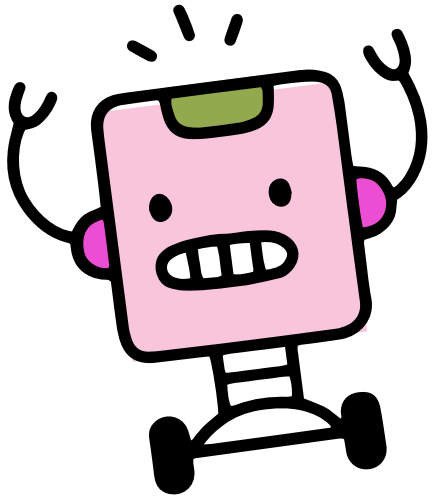
- ❑ Introduce Self
- ❑ Play a game
- ❑ Take a quiz
- ❑ Tell a story.
- ❑ Teach a song

Implemented :

- Introduce self
- Play a game
- Teach a song



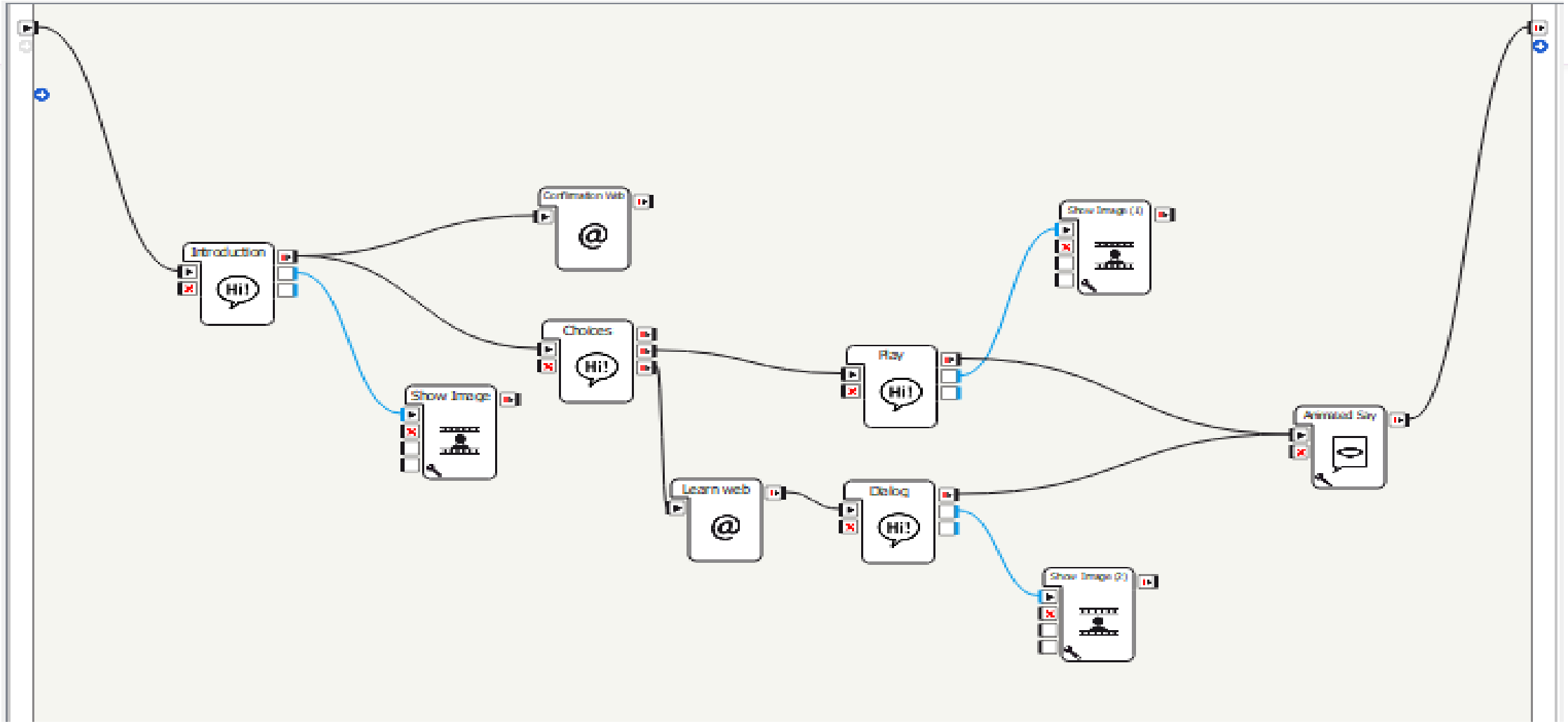




Personas

- Maya is a very shy girl, that don’t like to interact with people.
- Ray struggles with anger management problems, resorting to physical aggression when provoked.
- Elias is a sensitive young boy, highly emotional and breaks into tears instantly.
- Celine is an 8 years old girl, that faces bullying from her classmates because she prioritizes studying and actively participating in class.
- Georges is hyperactive but very smart kid that creates a chaotic environment in class, causing his friends to lose concentration.

Implementation



Implementation

```
topic: ~introduction()
language: enu

concept: (greeting) ^rand[hello hi "hi there" "hey" "hey there"]
concept: (name) [philip sarah joey]
concept: (thanks) ^rand[thanks "thank you"]
concept: (age) ^rand[4 5 6 7 8 9]
concept: (break1000) \pau=1000\

#proposals
proposal: $showImage=pics/hello.JPG \RSPD=85\ Hello kids, I am Pepper your FriendBot. I am here to enjoy
our time together. \pau=300\ \RSPD=100\ ^nextProposal

proposal: %name  What is your name?
u1:(_~name) $name=$1 I am so happy that you are here $name
~break1000

  ^goto(age)

proposal: %age $showImage=pics/thinking.png how old are you?
u1:( _~age years) So $name is $1 years old.
    ~break1000 ^goto(happy)

proposal: %happy $showImage=pics/happy.JPG Are you happy to be here?
    u1:(yes) \RSPD=85\ Oh my god me too! \pau=200\  Let us all applaud together \RSPD=100\
 ^run(applause) $onStopped=1
    u1:(no) Oh I'm so sorry \pau=200\ I hope this will change later on. $onStopped=1


#dialog
u: (e:onStart) ^nextProposal
```

Implementation

```
topic: ~songdialog()
language: enu
include:lexicon_enu.top



concept: (greeting) ^rand[hello hi "hi there" "hey" "hey there"]
concept: (thanks) ^rand[thanks "thank you"]
concept: (break1000) \pau=1000\
concept: (break500) \pau=500\
concept:(yes) [yes "all right" sure "why not" ok certainly "very well" yep yea definitely amen]
concept:(no) [no nope "don't want" "no way" never "not at all"]
concept:(hello) [hello hi hey "good morning" greetings]
concept:(good)[good nice enjoy love like]
concept:(bad)[no bad]


u:(e:onStart) ^nextProposal

proposal: ~break1000 ~joyful We will learn the Baby Shark song. Do you know it? $showImage=pics/sharks.jpg
    u1:(~yes) ~break1000 okay great dance with me while singing$showImage=pics/shark.jpg  ^run(song)
^nextProposal
    u1:(~no) ~break1000  ~joyful i'll help you learn it just repeat after me ~break500 and dance
$showImage=pics/shark.jpg  ^run(song) ^nextProposal


proposal: $showImage=pics/hello.JPG did you like it?
    u1:(~yes) ~joyful oh that's nice ~break500 i love you guys $onStopped=1
    u1: (~no) ~neutral oh that's sad, i hope you will like it next time    $onStopped=1
```

Implementation

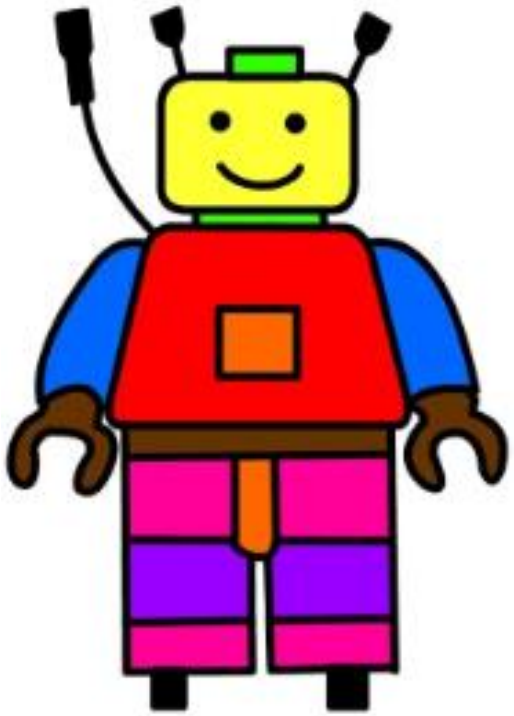
```
topic: ~intro()
language: enu
include:lexicon_enu.top

concept: (greeting) ^rand[hello hi "hi there" "hey" "hey there"]
concept: (thanks) ^rand[thanks "thank you"]
concept: (break1000) \pau=1000\
concept: (break400) \pau=400\

u:(e:onStart) ^nextProposal

#proposals
proposal: $showImage=pics/MickeyMouse.jpg ^nextProposal

proposal:  ~break1000 ~joyful Are you ready to guess the character?
    u1: (yes) ^nextProposal
    u1: (no) ~neutral \RSPD=85\ Oh no I hope we play together next time. \pau=300\ \RSPD=100\ $onStopped=1

proposal: $showImage=pics/PeppaPig.jpg  ~break1000 Is this character Peppa  Pig? ~break400 or Minnie?
     u1:(Peppa Pig) ~joyful Excellent ~break1000 ^nextProposal
     u1: (Minnie) ~neutral The character in the image is Peppa Pig ~break1000 ^nextProposal

proposal:$showImage=pics/MickeyMouse.jpg Is this character Mickey ? ~break400 or winnie?
     u1:(Mickey) ~joyful Amazing ^nextProposal ~break1000
     u1:(winnie) ~neutral No! The character in the image is Micky Mouse ^nextProposal ~break1000

proposal:$showImage=pics/MathEqu2.jpg Now Let us do some Math.~break400 two plus two is equal to three ?
~break400 or four ?
    u1:(four) ~joyful You are a smart kid! ^nextProposal ~break1000
    u1:(three) ~neutral No! The right answer is four.^nextProposal   ~break1000

proposal:$showImage=pics/hello.JPG Did you enjoy the game?
    u1:(yes) ~joyful \RSPD=85\ Me too! I really enjoyed playing with you \RSPD=100\ $onStopped=1
    u1:(no) ~neutral I'm sorry I hope you will enjoy it next time. $onStopped=1
```

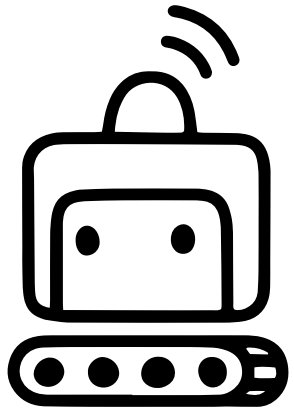
Challenges

- ❑Get familiar with Choregraphe and gain a comprehensive understanding of its workings.
- ❑Ensuring that the robot understands and reacts
- ❑Understand HTML codes and how to create a web page
- ❑Combining our use cases together.

Solutions

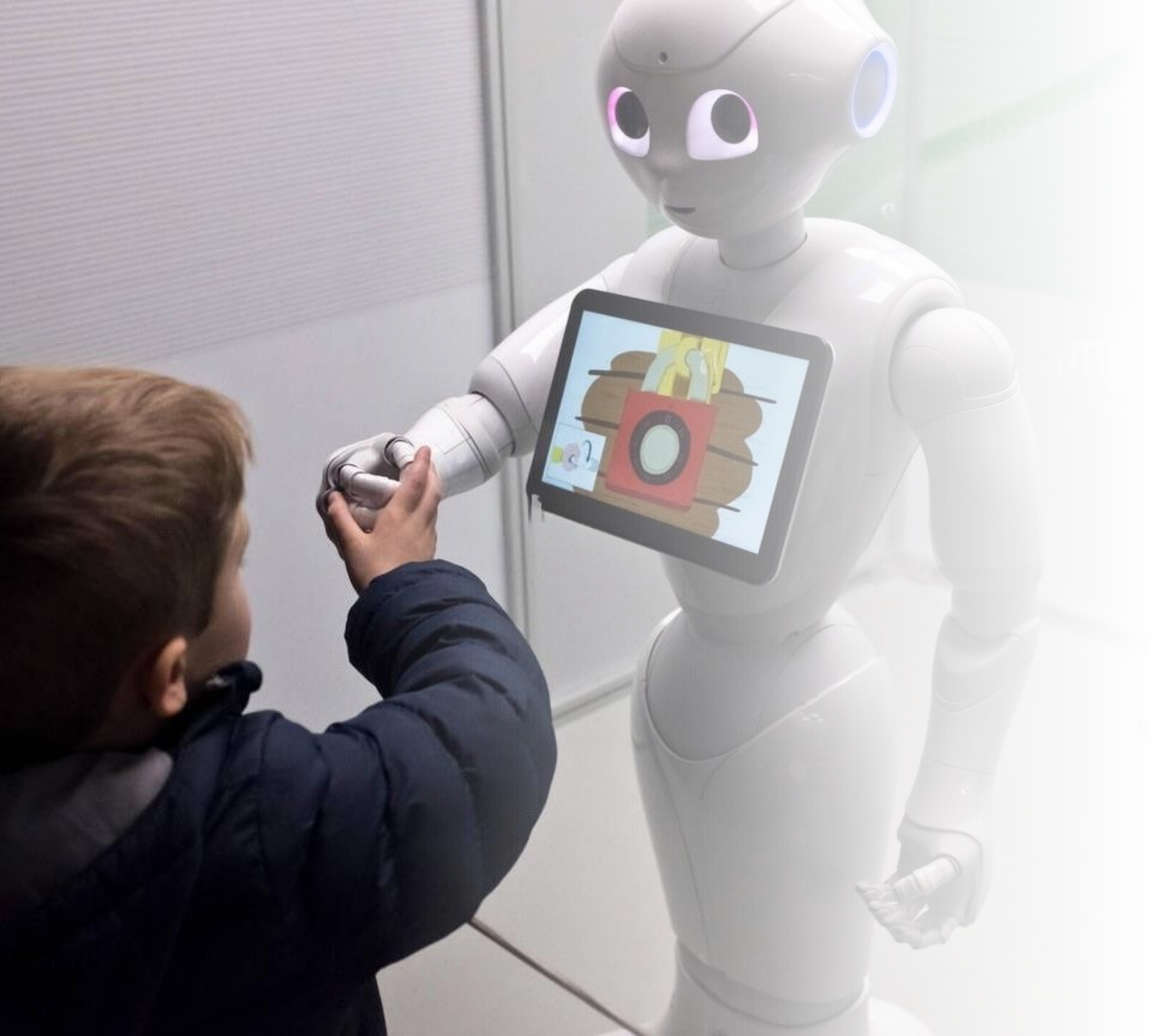
- Spent more time with Pepper the robot .
- Tried each function block alone on Choregraphe.
- Worked in team and helped each other to understand the coding part.





Future research

- Enhance Friendbot's personalization capabilities, allowing it to adapt its behaviors and activities to individual children's preferences, learning styles, and developmental stages.
- Investigate strategies to maintain long-term engagement with Friendbot
- Introduce more complex games or activities that challenge children’s cognitive abilities.
- Develop interactive storytelling capabilities where Pepper can narrate stories and involve children in the narrative.



Conclusion

- In conclusion, creating Friendbot a remarkable robot companion tailored to enhance children's interactions., fostering collaboration, and bringing joy to young hearts reaffirms our commitment to providing innovative solutions that positively impact social experiences.
- The project highlights the potential for technology to play a meaningful role in promoting positive interactions among children