



University of M'sila, Algeria

Computer science department

1st year undergraduate (2025/2026)

Introduction to Artificial intelligence

Lab 1 (program can appear intelligent)

Using python

Task 1:

Run the following code:

```
print("I am a computer.")  
print("I always behave the same way.")
```

Q. Does this program show any intelligence? Why or why not?

Task 2:

Run the following code:

```
name = input("What is your name? ")  
print("Hello", name, ". I will try to help you today.")
```

Q1. Does the program *know* who you are?

Q2. What is it doing with your answer?

Modify the program so it asks:

```
problem = input("What is bothering you today? ")  
print("You said:", problem)
```

Modify the program so it reacts differently to one specific situation:

```
problem = input("What is bothering you today? ").lower()  
  
if "exam" in problem:  
    print("That sounds stressful.")  
else:  
    print("I see.")
```

Run the program with:

- messages containing “exam”
- messages without “exam”

Q3. Why does the program react differently now?

Q4. Did it understand the problem, or detect something else?

Q5. What exactly triggered the response?

- the meaning of the sentence, or
- the presence of a specific word?

Q6. What happens if the word “**exam**” is:

- misspelled (e.g. *exm*, *exams*)?
- replaced by a synonym (e.g. *test*, *Quiz*)?

Q7. If a human reads the sentence and understands it, but the program does not react, what does that tell you about how the program works?

Add one more case, for example:

- “tired”
- “sleep”
- “stress”

Each case should produce a different response.

Run multiple tests.

Q8. Where did the reactions come from?

Q9. Did the computer invent them?

Q10. So far, is the program listening or deciding?

Q11. What would the program need to do to become useful?

Q12. Who is responsible for improving the program: the computer or the programmer?

Task 3:

Modify the responses so they now give simple advice:

Examples:

- “You should rest.”
- “You should plan your time.”
- “You should ask for help.”

Run the program again with different inputs.

Q. Does the program now feel more helpful?

Q. What changed: the program or the wording?

From the first program to this one:

Q. Where does the behavior of this program come from: the computer itself, or the rules written by a human?

Q. Is the program thinking about the problem, or simply following instructions step by step?

Q. Does this program understand students and their problems, or does it only react to certain words?

Q. Would this system still work correctly if it faced a situation the programmer did not imagine?

Q. Based on everything you observed, is this an example of **weak AI** or **strong AI**? Explain your choice.

Q. What is this program clearly unable to do, even though it may appear intelligent?