Embedded Systems

Task 4

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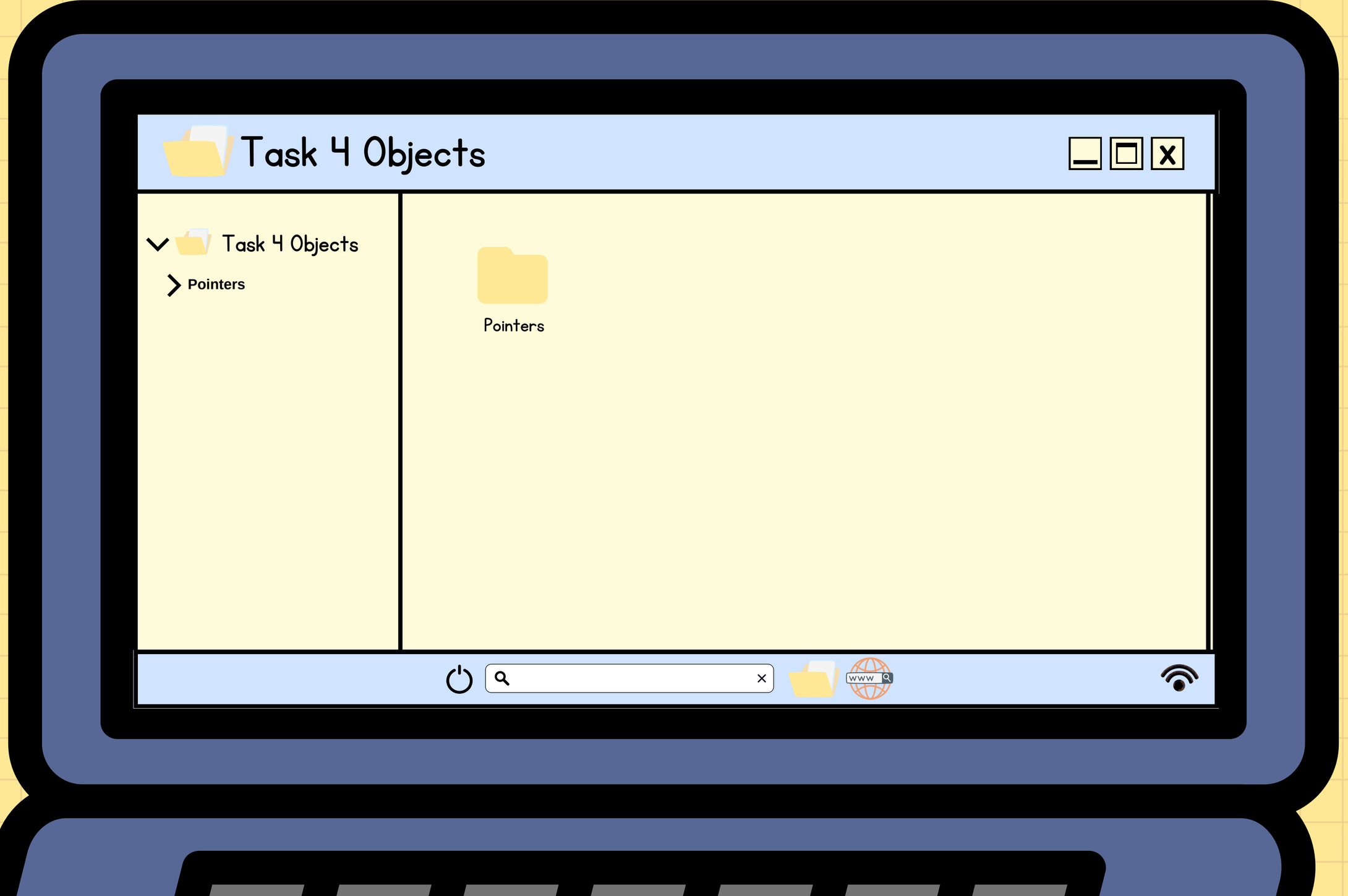
Task 4 Objects
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Pointers
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Pointers

- **Normal Pointer:**
  - A pointer that stores the memory address of a variable.

- **Code Example:**

```c
#include <stdio.h>

int main() {
    int num = 10;
    int *ptr = &num;

    printf("Value of num: %d\n", num);
    printf("Address of num: %p\n", &num);
    printf("Value stored at ptr: %d\n", *ptr);

    return 0;
}
```

Pointers

- **Double Pointer**
  - A pointer that stores the address of another pointer.

- **Code Example:**

```c
#include <stdio.h>

int main() {
    int num = 10;
    int *ptr = &num;
    int **ptr_to_ptr = &ptr;

    printf("Value of num: %d\n", num);
    printf("Value through ptr: %d\n", *ptr);
    printf("Value through ptr_to_ptr: %d\n", **ptr_to_ptr);

    return 0;
}
```

Pointers

- **Function Pointer**
  - A pointer that points to a function instead of a data variable.

- **Code Example:**

```c
#include <stdio.h>

void printMessage() {
    printf("Hello from the function pointer!\n");
}

int main() {
    void (*func_ptr)() = printMessage;
    func_ptr();

    return 0;
}
```

THANK YOU

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