

The **main** Function, **intprocs** Library, and Prompting

The Structure of a Simple Program (1 / 4)

- We begin with **importing** functionality from libraries
- Here we're importing a function named **print** from the `introsocs` library
- The `introsocs` library includes many other functionalities, too, like the ability to prompt for input.

```
// Hello World Demo
```

```
import { print } from "introsocs";
```

```
export let main = async () => {
```

```
    print("hello, world");
```

```
};
```

```
main();
```

The Structure of a Simple Program (2 / 4)

- The programs we write will have a `main` function defined in this way.
- This definition contains the instructions we want the program to follow (`print "hello, world"`)
- **Soon** you will learn what each of these words and symbols means.
- For now, we will treat the `main` function's definition as magic.

```
// Hello World Demo

import { print } from "intros";

export let main = async () => {
    print("hello, world");
};

main();
```

The Structure of a Simple Program (3 / 4)

- The last line of code in our program **calls**, or invokes, the **main** function
- This line tells our **main** function to proceed so our program begins.
- You will see this in every program, as well. It should be the last statement in a file that contains a **main** function definition.

```
// Hello World Demo
import { print } from "intros";
export let main = async () => {
    print("hello, world");
};
main();
```

The Structure of a Simple Program (4 / 4)

- Initially, you will write code *inside* of the main function.
- These are the instructions your program will follow.
- Soon, you will learn to write functions defined outside of **main**.

```
// Hello World Demo

import { print } from "intros";

export let main = async () => {

  print("hello, world");

};

main();
```

Prompting for Input (1/2)

- The **intros** library provides 3 functions to prompt for input:
 - `promptString`
 - `promptNumber`
 - `promptBoolean`
- Each will ask the user to enter data of the given type
- To use a **prompt** function, you must import it from the **intros** library:

```
import { promptString } from "intros";
```
- You'll often need to import more than one function from a library. There is a convenient way of doing this with a comma-separated list of functions:

```
import { print, promptString, promptNumber } from "intros";
```

Prompting for Input (2/2)

- When prompting, the program must **await** user input.
 - It is as if our program *pauses* or, more technically, **blocks**, at the prompt.

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```
age = await promptNumber("What is your age?");
```

1. The **promptNumber** function is called and will ask the question "What is your age?"
2. The program awaits the user's input.
3. Once the user has input data, the right hand side of the assignment statement evaluates to the data entered and is, finally, assigned to the age variable.