Basic input and output in Java

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Programming Concepts using Java Week 2

Interacting with a Java program

- We have seen how to print data
 - System.out.println("hello, world");
- How do we read data

Reading input

- Simplest to use is the Console class
 - Functionality similar to Python
 input()

Programming Concepts using Java

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- Defined within System
 - Two methods, readLine and readPassword
 - readPassword does not echo characters on the screen
 - readLine returns a string (like Python input())
 - readPassword returns an array of char — for security reasons

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Console cons = System.console();
String username =
    cons.readLine("User name: ");
char[] passwd =
    cons.readPassword("Password: ");
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- More general Scanner class
 - Allows more granular reading of input
 - Read a full line, or read an integer, . . .

```
Scanner in = new Scanner(System.in);
String name = in.nextLine();
int age = in.nextInt();
....
```

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 - Implicitly converts argument to a string
- System.out.print(arg) is similar, but does not advance to a new line
- System.out.printf(arg) generates formatted
 output
 - Same conventions as printf in C
 - Read the documentation