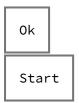# Programming Language Survey

This survey is designed to compare the readability of two programming languages. It is anonymous and the languages are being judged, not you, so don't feel stressed. Just answer all questions as good as you can.

Please fill in the information below and click "Done" to start.

- Age: [ ]
- Field of Study: [ ]
- Semester: [ ]
- Proficiency in C **or** C++: [none ▼]
- Proficiency in Python: [none ▼]

[Done]

Please **read** the following code examples and **answer** the questions in the box below. The programming language of the example is noted on the top right.

[Ok]

[Start]

What is the following code doing?

python

```python
from machine import Pin

p = Pin('X1', Pin.OUT)

p.high()
```

What is the following code doing?

C

```c
#include <stdio.h>

int main() {
    FILE *in, *out;
    int c;

    in = fopen("input.txt", "r");
    if (!in) {
        printf("Error opening input.txt for reading.\n");
        return 1;
    }

    out = fopen("output.txt", "w");
    if (!out) {
        printf("Error opening output.txt for writing.\n");
        fclose(in);
        return 1;
    }

    while ((c = fgetc(in)) != EOF) {
        fputc(c, out);
    }

    fclose(out);
    fclose(in);
    return 0;
}
```

What are the values of a and b at the end of this code?

python

```python
a = 1
b = 2

a, b = b, a+b
```

What are the values of x and y at the end of this code?

C

```c
int a = 45;
float b = 0.45;

int x;
float y;

x = a + b;
y = a + b;
```

What is the following code doing?

python

```python
i = 99

while i > 0:
    print(i)
    i = i - 1
```

Done

Start

What is the following code doing?

C

```c
#include <stdio.h>

int main(void) {

    int i;

    for(i=1; i<100; i++) {
        if( ( i%3 || i%5 ) == 0 ) {
            printf("FizzBuzz\n");
        } else if( i%3 == 0 ) {
```

```c
                printf("Fizz\n");
            } else if( i%5 == 0 ) {
                printf("Buzz\n");
            } else {
                printf("%d\n",i);
            }
        }
    }
```

Done

Start

What is the output of this code?

python

```python
a = 123.1423414123

print(i)
```

Done

Start

What is the output of this code?

C

```c
#include <stdio.h>
```

```c
int main(void) {
    int a[5] = {1,2,3,4,5};

    printf("%d\n",a[5]);
}
```

Done

Start

What is the output of this code?

python

```python
for i in range(0, 3):
    print(i)
```

Done

Start

What is the following code doing?

C

```c
#include "stm32f4xx_gpio.h"

int main(void) {
    GPIO_InitTypeDef GPIO_InitDef;

    GPIO_InitDef.GPIO_Pin = GPIO_PIN_13;
```

```
    GPIO_InitDef.GPIO_Mode = GPIO_MODE_OUTPUT_PP;

    GPIO_Init(GPIOG, &GPIO_InitDef);

    GPIO_WritePin(GPIOG, GPIO_PIN_13, GPIO_PIN_SET);
}
```

Done

Start

What is the following code doing?

python

```python
try:
    with open('input.txt') as infile:
        with open('output.txt', 'w') as outfile:
            for line in infile:
                outfile.write(line)
except IOError:
    print("Error opening file.")
```

Done

Start

What are the values of a and b at the end of this code?

C

```
int a = 1;
int b = 2;
int temp;


temp = a + b;
a = b;
b = temp;
```

[   ]

Done

Start

What are the values of x and y at the end of this code?

python

```
a = 45
b = 0.45

x = a + b
y = a + b
```

[   ]

Done

Start

What is the following code doing?

C

```c
#include <stdio.h>

int main(void) {
    int i = 99;

    while(i > 0) {
        printf("%d\n", i);
        i--;
    }

}
```

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Done

Start

What is the following code doing

python

```python
for i in range(1, 100):
    if i%3 == 0 and i%5 == 0:
        print("FizzBuzz")
    elif i%3 == 0:
        print("Fizz")
    elif i%5 == 0:
        print("Buzz")
    else:
        print(i)
```

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Done

Start

What is the output of this code?

C

```c
#include <stdio.h>

int main(void) {
    int i;
    double a = 123.1423414123;

    printf("%d\n", i);
}
```

Done

Start

What is the output of this code?

python

```python
a = [1,2,3,4,5]

print(a[5])
```

Done

Start

What is the output of this code?

C

```c
#include <stdio.h>

int main(void) {
    int i;

    for(i=0; i<3; i++) {
        printf("%d\n", i);
    }

}
```

Done

- How are code blocks structured in C?

- How are code blocks structured in Python?

- Define a function that returns 1+a, where a is an argument of the function, in C (use 4 whitespaces for indentation):

- Define a function that returns 1+a, where a is an argument of the function, in Python (use 4 whitespaces for indentation):

[ ]

- What do you think about C?

[ ]

- What do you think about Python?

[ ]

Done

Save!   *Thank You!*