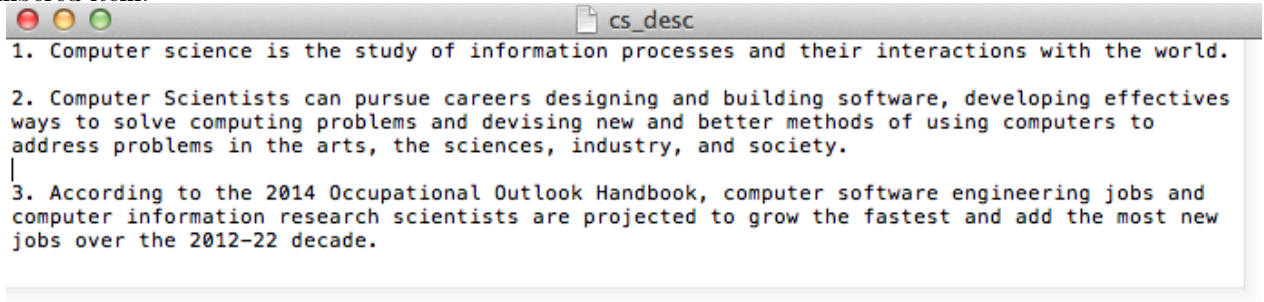


## WorkSheet: Input and Output 1

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Determine what each of these code fragments does by mentally tracing the code. Write or describe the value of `x` at the end of each snippet of code unless the code snippet produces in an error. Assume each code snippet is run independently of previous code snippets.

The following figure should be used to answer questions 1-10. It represents a basic text file describing computer science. Each numbered item appears on its own line, and a blank line appears after each numbered item.



### Problem 1.

```
1 fh = open("cs_desc.txt", "r")
2 x = fh.read()
```

### Problem 2.

```
1 fh = open("cs_desc.txt", "r")
2 lines = fh.readlines()
3 x = lines[2]
4 fh.close()
```

### Problem 3.

```
1 fh = open("cs_desc.txt", "w")
2 fh.write("Check_out_NAU.")
3 fh.close()

4
5 fh = open("cs_desc.txt", "r")
6 x = fh.readline()
7 fh.close()
```

### Problem 4.

```
1 fh = open("cs_desc.txt", "a")
2 fh.write("\nCheck_out_NAU.")
3 fh.close()

4
5 fh = open("cs_desc.txt", "r")
6 lines = fh.readlines()
7 x = lines[6]
8 fh.close()
```

**Problem 5.**

```
1 fh = open("cs_desc.txt", "a")
2 x = fh.readline()
3 fh.close()
```

**Problem 6.**

```
1 fh=open("cs_desc.txt","w")
2 for i in range(3):
3     fh.write(i)
4 x=i
5 fh.close()
```

**Problem 7.**

```
1 fh = open("cs_desc.txt", "r")
2 x = fh.readline()
3 x=len(x)
4 fh.close()
```

**Problem 8.**

```
1 fh = open("cs_desc.txt", "r")
2 x = fh.readlines()
3 x=len(x)
4 fh.close()
```

**Problem 9.**

```
1 fh=open("cs_desc.txt","r+")
2 lines=fh.readlines()
3 for i in lines:
4     x=i
5     fh.write(i)
6 fh.close()
```

**Problem 10.**

```
1 fh=open("cs_desc.txt","r+")
2 lines=fh.readlines()
3 for i in range(len(lines)):
4     fh.write(str(i))
5 x=fh.readline()
6 fh.close()
```