Note: We didn't include screenshots of our tests for last name and integer #2 because we felt it was redundant to test our functions twice

Java (refer to the test cases pdf)

1. Special characters (Reject) "!1- Aa"
2. No characters (Reject) ""
3. 51 characters (Reject) "TomIsTheBestProfessorAtUWTeverTomIsTheBestProfessor"
4. Multiple Names (Reject) "Tom Capaul"
5. Basic name with only characters all uppercase (Accept) "CAPAUL"
6. Basic name with only characters all lowercase(Accept) "tom"

```
C:\Users\natha\OneDrive\Documents\_UWT\483 - Secure Programming Principles\Defend
 your Code\code-defense> cmd /C ""C:\Program Files\Java\jdk-18.0.2\bin\java.exe"
-XX:+ShowCodeDetailsInExceptionMessages -cp C:\Users\natha\AppData\Roaming\Code\U
ser\workspaceStorage\ebe06ff03c061353f001804ebc2c6645\redhat.java\jdt_ws\code-def
ense_e1dc0dc5\bin CodeDefense "
Please provide your first name.
Must be between 1-50 characters and contain only letters and numbers.
!1- Aa
Not a valid first name. Please try again.
Please provide your first name.
Must be between 1-50 characters and contain only letters and numbers.

Not a valid first name. Please try again.
Please provide your first name.
Must be between 1-50 characters and contain only letters and numbers.
TomIsTheBestProfessorAtUWTeverTomIsTheBestProfessor
Not a valid first name. Please try again.
Please provide your first name.
Must be between 1-50 characters and contain only letters and numbers.
Tom Capaul
Not a valid first name. Please try again.
Please provide your first name.
Must be between 1-50 characters and contain only letters and numbers.
CAPAUL
Please provide your last name.
Must be between 1-50 characters and contain only letters and numbers.
tom
```

1. Basic name with only characters uppercase and lowercase (Accept) "Tom"
2. 50 characters (Accept) "TomIsTheBestProfessorAtUWTeverTomIsTheBestProfesso"

```
C:\Users\natha\OneDrive\Documents\_UWT\483 - Secure Programming Principles\Defend
 your Code\code-defense> cmd /C ""C:\Program Files\Java\jdk-18.0.2\bin\java.exe"
-XX:+ShowCodeDetailsInExceptionMessages -cp C:\Users\natha\AppData\Roaming\Code\U
ser\workspaceStorage\ebe06ff03c061353f001804ebc2c6645\redhat.java\jdt_ws\code-def
ense_e1dc0dc5\bin CodeDefense "
Please provide your first name.
Must be between 1-50 characters and contain only letters and numbers.
Tom
Please provide your last name.
Must be between 1-50 characters and contain only letters and numbers.
TomIsTheBestProfessorAtUWTeverTomIsTheBestProfesso
```

1. A string (Reject) "Secure Coding Principles"
2. No characters (Reject) ""
3. -2^31 - 1 (Reject) -2147483649
4. 2^31 (Reject) 2147483648
5. -2^31 (Accept) -2147483648
6. Decimal number (Reject) 6.0
7. 2^31 - 1 (Accept) 2147483647

```
C:\Users\natha\OneDrive\Documents\_UWT\483 - Secure Programming Principles\Defend your Code\code-defense> cmd /C ""C:\Program Files\Java\jd
8.0.2\bin\java.exe" -XX:+ShowCodeDetailsInExceptionMessages -cp C:\Users\natha\AppData\Roaming\Code\User\workspaceStorage\ebe06ff03c061353f
804ebc2c6645\redhat.java\jdt_ws\code-defense_e1dc0dc5\bin CodeDefense "
Please provide your first name.
Must be between 1-50 characters and contain only letters and numbers.
asdfasdf
Please provide your last name.
Must be between 1-50 characters and contain only letters and numbers.
asdasdfasd
Please provide a 4 byte integer.
Secure Programming Principles
Please provide a 4 byte integer.

Please provide a 4 byte integer.
-2147483649
Not a valid integer. Please try again.
Please provide a 4 byte integer.
2147483648
Not a valid integer. Please try again.
Please provide a 4 byte integer.
-2147483648
Please provide a 4 byte integer.
6.0
Please provide a 4 byte integer.
2147483647
Please provide the input file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters
```

1. Unexcepted file type (Reject) "file.exe"
2. No file type (Reject) "file"
3. ".txtinput" (Reject)
4. ".txt.txt" (Reject)

```
Please provide the input file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 cha
racters
file.exe
Not a valid file name. Please try again.
Please provide the input file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 cha
racters
file
Not a valid file name. Please try again.
Please provide the input file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 cha
racters
.txtinput
Not a valid file name. Please try again.
Please provide the input file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 cha
racters
.txt.txt
Not a valid file name. Please try again.
Please provide the input file name.
```

1. No characters (Reject)

```
Please provide your first name.
Must be between 1-50 characters and contain only letters and numbers.

Not a valid first name. Please try again.
Please provide your first name.
Must be between 1-50 characters and contain only letters and numbers.
|
```

1. "output.txt"(Accept)

```
Please provide the input file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 cha
racters
output.txt
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 cha
```

1. 51 characters without extension (Reject)
   "TomIsTheBestProfessorAtUWTeverTomIsTheBestProfesse1.txt"

```
Must be a .txt file in the current directory. The file name must be between 1 and 50 cha
racters
TomIsTheBestProfessorAtUWTeverTomIsTheBestProfesse1.txt
Not a valid file name. Please try again.
Please provide the input file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 cha
racters
```

1. Unexcepted file type (Reject) "out.exe
2. "No file type (Reject) "output"
3. ".txtinput" (Reject)
4. ".txt.txt" (Reject)
5. Sdfasdkasdhfalksjdlkjsdflaksjdflaksjd;flkasjdflkasjdflkasjdflasjkdf;sdlfaskld;las.txt (reject)
6.

```
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 cha
racters and must not match the input file name.
out.exe
Not a valid file name. Please try again.
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 cha
racters and must not match the input file name.
output
Not a valid file name. Please try again.
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 cha
racters and must not match the input file name.
.txtinput
Not a valid file name. Please try again.
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 cha
racters and must not match the input file name.
.txt.txt
Not a valid file name. Please try again.
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 cha
racters and must not match the input file name.
jlaskdfjlaskdjfasdfjasl;dkfjlskadfjas;lkfdjaslk;djfsajdfkasldfkjlkajdflkasdlaskdalsdkjfl
asd.txt
Not a valid file name. Please try again.
Please provide the output file name.
```

1. No characters (Reject) ""

```
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 cha
racters and must not match the input file name.

Not a valid file name. Please try again.
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 cha
```

1. **Input file name** (Reject)
2. More than 50 characters (Reject)
   "TomIsTheBestProfessorAtUWTeverTomIsTheBestProfesse1.txt"

```
input.txt
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 cha
racters and must not match the input file name.
input.txt
Not a valid file name. Please try again.
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 cha
racters and must not match the input file name.
```

```
input.txt
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 cha
racters and must not match the input file name.
TomIsTheBestProfessorAtUWTeverTomIsTheBestProfesse1.txt
Not a valid file name. Please try again.
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 cha
racters and must not match the input file name.
```

1. NOLOWERCASEORNUMBERS (reject)
2. nouppercaseornumbers (reject) (Note: more than 3 in a row can't be lowercase)
3. NoSpeCiaLChAraCteRs123 (reject)
4. nouppercase'123 (reject)
5. NoNumBeRs!!$!$! (reject)
6. NOpunctuation123 (reject)
7. Empty string (reject)

```
NOLOWERCASEORNUMBERS
Not a valid password. Please try again.
Please provide a password.
Must be at least 10 characters long and contain at least 1 uppercase character, lowercas
e character, digit, punctuation mark, and must not have more than 3 consecutive lowercas
e characters. No special characters other than punctuation.

Nouppercaseornumbers
Not a valid password. Please try again.
Please provide a password.
Must be at least 10 characters long and contain at least 1 uppercase character, lowercas
e character, digit, punctuation mark, and must not have more than 3 consecutive lowercas
e characters. No special characters other than punctuation.

NoSpeCiaLChAraCteRs123
Not a valid password. Please try again.
Please provide a password.
Must be at least 10 characters long and contain at least 1 uppercase character, lowercas
e character, digit, punctuation mark, and must not have more than 3 consecutive lowercas
e characters. No special characters other than punctuation.

Nouppercase'123
Not a valid password. Please try again.
Please provide a password.
Must be at least 10 characters long and contain at least 1 uppercase character, lowercas
e character, digit, punctuation mark, and must not have more than 3 consecutive lowercas
e characters. No special characters other than punctuation.
```

```
NoNumBeRs!!$!$!
Not a valid password. Please try again.
Please provide a password.
Must be at least 10 characters long and contain at least 1 uppercase character, lowercas
e character, digit, punctuation mark, and must not have more than 3 consecutive lowercas
e characters. No special characters other than punctuation.

NOpunctuation123
Not a valid password. Please try again.
Please provide a password.
Must be at least 10 characters long and contain at least 1 uppercase character, lowercas
e character, digit, punctuation mark, and must not have more than 3 consecutive lowercas
e characters. No special characters other than punctuation.
```

```
Please provide a password.
Must be at least 10 characters long and contain at least 1 uppercase character, lowercas
e character, digit, punctuation mark, and must not have more than 3 consecutive lowercas
e characters. No special characters other than punctuation.


Not a valid password. Please try again.
Please provide a password.
Must be at least 10 characters long and contain at least 1 uppercase character, lowercas
e character, digit, punctuation mark, and must not have more than 3 consecutive lowercas
```

1. it'sReaLlyLaTe123 (accept)
2. It'sLiKe2In_The_MoRnIng (accept)
3. I-Hav3-So-MuCh-W0rk-To-Do (accept)

```
Please provide a password.
Must be at least 10 characters long and contain at least 1 uppercase character, lowercas
e character, digit, punctuation mark, and must not have more than 3 consecutive lowercas
e characters. No special characters other than punctuation.

it'sReaLlyLaTe123
Password: it'sReaLlyLaTe123
Please re-enter your password.

it'sReaLlyLaTe123
Password: it'sReaLlyLaTe123
Passwords match.
```

```
Please provide a password.
Must be at least 10 characters long and contain at least 1 uppercase character, lowercas
e character, digit, punctuation mark, and must not have more than 3 consecutive lowercas
e characters. No special characters other than punctuation.

It'sLiKe2In_The_MoRnIng
Password: It'sLiKe2In_The_MoRnIng
Please re-enter your password.

It'sLiKe2In_The_MoRnIng
Password: It'sLiKe2In_The_MoRnIng
Passwords match.
```

```
Please provide a password.
Must be at least 10 characters long and contain at least 1 uppercase character, lowercas
e character, digit, punctuation mark, and must not have more than 3 consecutive lowercas
e characters. No special characters other than punctuation.

I-Hav3-So-MuCh-W0rk-To-Do
Password: I-Hav3-So-MuCh-W0rk-To-Do
Please re-enter your password.

I-Hav3-So-MuCh-W0rk-To-Do
Password: I-Hav3-So-MuCh-W0rk-To-Do
Passwords match.

c:\Users\natha\OneDrive\Documents\_UWT\483 - Secure Programming Principles\Defend your C
ode\code-defense>
```

Python

First names / Last names

First Name will be same as last name since they share the same function.

7. Special characters (Reject) "!1- Aa"
8. No characters (Reject) ""
9. 51 characters (Reject) "TomIsTheBestProfessorAtUWTeverTomIsTheBestProfessor"
10. Multiple Names (Reject) "Tom Capaul"

```
PS C:\Users\Kraut\Documents\Workspace\code-defense> & C:/Users/Kraut/AppDat
Please provide your first name.
Must be between 1-50 characters and contain only letters and numbers.
!1- Aa
Not a valid name. Please try again.
Please provide your first name.
Must be between 1-50 characters and contain only letters and numbers.

Not a valid name. Please try again.
Please provide your first name.
Must be between 1-50 characters and contain only letters and numbers.
TomIsTheBestProfessorAtUWTeverTomIsTheBestProfessor
Not a valid name. Please try again.
Please provide your first name.
Must be between 1-50 characters and contain only letters and numbers.
Tom Capaul
Not a valid name. Please try again.
Please provide your first name.
Must be between 1-50 characters and contain only letters and numbers.
▯
```

Integer #1 / Integer #2

1. A string (Reject) "Secure Coding Principles"

```
Please provide a 4 byte integer.Secure Coding Principles
Not an integer. Please try again.
Please provide a 4 byte integer.▯
```

2. No characters (Reject) ""

```
Not an integer. Please try again.
Please provide a 4 byte integer.
Not an integer. Please try again.
Please provide a 4 byte integer.▯
```

3. -2^31 - 1 (Reject) -2147483649

```
Please provide a 4 byte integer. -2147483649
Integer was too many bytes. Please try again.
Please provide a 4 byte integer.▯
```

4. 2^31 (Reject) 2147483648

```
Please provide a 4 byte integer.2147483648
Integer was too many bytes. Please try again.
Please provide a 4 byte integer.
```

5. Decimal number (Reject) 6.0

```
Please provide a 4 byte integer.6.0
Not an integer. Please try again.
Please provide a 4 byte integer.
```

Prompt for Input File Name

1. Unexcepted file type (Reject) "file.exe"

```
Please provide the input file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters
file.exe
Not a valid file name. Please try again.
Please provide the input file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters
```

2. No file type (Reject) "file"

```
Please provide the input file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters
file
Not a valid file name. Please try again.
Please provide the input file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters
```

3. ".txtinput" (Reject)

```
Please provide the input file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters
.txtinput
Not a valid file name. Please try again.
Please provide the input file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters
```

4. ".txt.txt" (Reject)

```
Please provide the input file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters
.txt.txt
Not a valid file name. Please try again.
Please provide the input file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters
```

5. More than 50 characters without extension (Reject)
   "TomIsTheBestProfessorAtUWTeverTomIsTheBestProfesse1.txt"

```
Please provide the input file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters excluding the extension.
TomIsTheBestProfessorAtUWTeverTomIsTheBestProfesse1.txt
Not a valid file name. Please try again.
Please provide the input file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters excluding the extension.
```

6. No characters (Reject)

```
Please provide the input file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters excluding the extension.

Not a valid file name. Please try again.
Please provide the input file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters excluding the extension.
```

Prompt for Output File Name

1. Unexcepted file type (Reject) "out.exe

```
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters excluding the extension.
out.exe
Not a valid file name. Please try again.
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters excluding the extension.
```

2. "No file type (Reject) "output"

```
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters excluding the extension.
output
Not a valid file name. Please try again.
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters excluding the extension.
```

3. ".txtinput" (Reject)

```
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters excluding the extension.
.txtinput
Not a valid file name. Please try again.
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters excluding the extension.
```

4. ".txt.txt" (Reject)

```
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters excluding the extension.
.txt.txt
Not a valid file name. Please try again.
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters excluding the extension.
```

5. More than 50 characters (Reject)
   "TomIsTheBestProfessorAtUWTeverTomIsTheBestProfesse1.txt"

```
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters excluding the extension.
TomIsTheBestProfessorAtUWTeverTomIsTheBestProfesse1.txt
Not a valid file name. Please try again.
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters excluding the extension.
```

6. No characters (Reject) ""

```
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters excluding the extension.

Not a valid file name. Please try again.
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters excluding the extension.
```

7. **Input file name** (Reject)

```
Please provide the input file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters excluding the extension.
in.txt
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters excluding the extension.
in.txt
Not a valid file name. Please try again.
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters excluding the extension.
```

Prompt for Password

1. NOLOWERCASEORNUMBERS (reject)

```
Please provide a password.
Must be at least 10 characters long and contain at least 1 uppercase character, lowercase character, digit, punctuation mark, and must not have more than 3 consecutive lowercase characters.
NOLOWERCASEORNUMBERS& C:/Users/Kraut/AppData/Local/Programs/Python/Python312/python.exe c:/Users/Kraut/Documents/Workspace/code-defense/CodeDefense.py
Invalid password. Please try again.
```

2. nouppercaseornumbers (reject)

```
Invalid password. Please try again.
nouppercaseornumbers
Invalid password. Please try again.
```

3. NoSpeCiaLChAraCteRs123 (reject)

```
Invalid password. Please try again.
NoSpeCiaLChAraCteRs123
Invalid password. Please try again.
```

4. nouppercase'123 (reject)

```
Invalid password. Please try again.
nouppercase'123
Invalid password. Please try again.
```

5. NoNumBeRs!!$!$! (reject)

```
Invalid password. Please try again.
NoNumBeRs!!$!$!
Invalid password. Please try again.
```

6. NOpunctuation123 (reject)

```
Invalid password. Please try again.
NOpunctuation123
Invalid password. Please try again.
```

7. Empty string (reject)

```
Invalid password. Please try again.


Invalid password. Please try again.
```

Accept cases

First names / Last names

1. Basic name with only characters uppercase and lowercase (Accept) "Tom"

```
Tom
Please provide your last name.
Must be between 1-50 characters and contain only letters and numbers.
□
```

2. Basic name with only characters all uppercase (Accept) "CAPAUL"

```
Please provide your first name.
Must be between 1-50 characters and contain only letters and numbers.
CAPAUL
Please provide your last name.
Must be between 1-50 characters and contain only letters and numbers.
```

3. Basic name with only characters all lowercase(Accept) "tom"

```
PS C:\Users\kraut\Documents\workspace\code-defense> & C:/Users/kraut/AppData/Local/Programs/Python/
Please provide your first name.
Must be between 1-50 characters and contain only letters and numbers.
tom
Please provide your last name.
Must be between 1-50 characters and contain only letters and numbers.
tom
Please provide the input file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters
```

4. 50 characters (Accept) "TomIsTheBestProfessorAtUWTeverTomIsTheBestProfesso"

```
Please provide your first name.
Must be between 1-50 characters and contain only letters and numbers.
a
Please provide your last name.
Must be between 1-50 characters and contain only letters and numbers.
TomIsTheBestProfessorAtUWTeverTomIsTheBestProfesso
Please provide the input file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters
□
```

Integer #1 / Integer #2

1. -2^31 (Accept) -2147483648

```
Please provide a 4 byte integer.-2147483648
Please provide a 4 byte integer.□
```

2. 2^31 - 1 (Accept) 2147483647

```
Please provide a 4 byte integer.2147483647
Please provide the input file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters
```

3. Generic int (Accept) 1313

```
al
Please provide a 4 byte integer.
1313
```

Prompt for Input File Name

1. "output.txt"(Accept)

```
Please provide the input file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters excluding the extension.
output.txt
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters excluding the extension.
```

2. "input.txt"(Accept)

```
Please provide the input file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters excluding the extension.
input.txt
```

3. 50 characters excluding extension (Accept)
   "TomIsTheBestProfessorAtUWTeverTomIsTheBestProfess1.txt"

```
Please provide the input file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters excluding the extension.
TomIsTheBestProfessorAtUWTeverTomIsTheBestProfess1.txt
Please provide the output file name.
Must be a .txt file in the current directory. The file name must be between 1 and 50 characters excluding the extension.
```

Prompt for Output File Name

1. "output.txt " (Accept)
2. 50 characters (Accept) "TomIsTheBestProfessorAtUWTeverTomIsTheBestProf.txt"

Prompt for Password

1. it'sReaLlyLaTe123 (accept)

```
Invalid password. Please try again.
it'sReaLlyLaTe123
Please re-enter your password.
```

2. It'sLiKe2In_The_MoRnIng (accept)

```
Please provide a password.
Must be at least 10 characters long and contain at least 1 uppercase character, lowercase character, digit, punctuation mark, and must not have more than 3 consecutive lowercase characters.
It'sLiKe2In_The_MoRnIng
Please re-enter your password.
```

3. I-Hav3-So-MuCh-W0rk-To-Do (accept)

```
Please provide a password.
Must be at least 10 characters long and contain at least 1 uppercase character, lowercase character, digit, punctuation mark, and must not have more than 3 consecutive lowercase characters.
I-Hav3-So-MuCh-W0rk-To-Do
Please re-enter your password.
```