



# length function - function getPassLength(min, max)

Ask for user input matching length criteria -

```
var lengthInput = prompt("Please  
choose a password length between  
8 and 128 characters:");
```

compare user input to length criteria - loop for invalid until valid

```
let i = 0  
while(i === 0)
```

```
    if (lengthInput.match(/[0-9]/) &&  
        !lengthInput.match(/[/]/) && lengthInput >= min &&  
        lengthInput <= max)
```

Global Variables -

```
var generateBtn = document.querySelector("generate");  
button. calls writePassword function
```

```
var minLength = 8; (for length function)
```

```
var maxLength = 128; (for length function)
```

does match -

```
    increment i and  
    return  
    lengthInput.trim();
```

does not match -

```
    alert("Your input was  
    invalid");  
    loops back
```

# collect all responses for pw requirements with one function - function getResponse(condition)

```
var includeUpper =  
getResponse("uppercase letters?");  
var includeLower =  
getResponse("lowercase letters?");  
var includeSpecial =  
getResponse("special characters?");  
var includeNumber =  
getResponse("numbers?");
```

```
ask for user input - var  
response =  
prompt("Would you like  
to include " + condition +  
" Yes or No");
```

```
if (response.toLowerCase()  
=== "yes" ||  
response.toLowerCase() ===  
"y") {  
  i++;  
  return true;
```

```
  else if (response.toLowerCase()  
=== "no" ||  
response.toLowerCase() === "n")  
  {  
    i++;  
    return false;
```

```
loop for invalid  
until valid  
i = 0  
while (i === 0)
```

Valid responses

Invalid responses

```
alert("Your input was  
invalid");
```

loops back

creating acceptable character list - function getCharList(includeUpper, includeLower, includeSpecial, includeNumber)

Define each user selected requirement variable set:

```
var upper =  
"ABCDEFGHIJKLMNOPQRSTUVWXYZ";  
var lower = upper.toLowerCase();  
var number = "0123456789";  
var special = " !#$%&'()*+,-./:;<=>?@[^_`{|}~"  
var charSet = "";
```

combine user selected requirement variable sets-

```
if (includeUpper) {  
    charSet += upper;  
}  
if (includeLower) {  
    charSet += lower;  
}  
if (includeNumber) {  
    charSet += number;  
}  
if (includeSpecial) {  
    charSet += special;  
}  
return charSet;
```

## Generate Password - function generatePassword()

```
var passLength = getPassLength(minLength, maxLength);
```

start while loop for validation and calling functions

```
let i = 0;
while (i === 0) {
  var includeUpper = getResponse("uppercase letters?");
  var includeLower = getResponse("lowercase letters?");
  var includeSpecial = getResponse("special characters?");
  var includeNumber = getResponse("numbers?");
```

ensure at least one criteria is used:

```
if (includeUpper || includeLower
    || includeSpecial ||
    includeNumber) {
  i++;
} else {
  alert("You must select at least
  one character type.")
}
```

grab charList -

```
var charList =
  getCharList(includeU
    pper, includeLower,
    includeSpecial,
    includeNumber);
```

generate password -

```
var randomPass = "";
for (let j = 0; j < passLength; j++) {
  randomPass +=
    charList.charAt(Math.floor(Math.
      random() * charList.length));
}
return randomPass;
```