scripts.js

```javascript
let regex1 = /^[a-z]$/  //checks if first word is [a to z]

console.log(regex1.test('g'))   //true, g belongs to [a to z]
console.log(regex1.test('A'))   //false, A doesn't belong to [a to z]

let regex2 = /^[A-Z]$/
console.log(regex2.test('A'))   //true, A belongs to [a to z]

//wildcard in regex
let regex3 = /a.b/  // exactly one character must be in middle of a and b
console.log(regex3.test('ab'))  //false, nothing is between a and b
console.log(regex3.test('acb')) //true, c comes in between a and b
console.log(regex3.test('accb')) //false, two characters between a and c

//closure properties
let regex4 = /a.*b/ //any number of characters between a and b,
                    //0 number of character is also accepted
console.log(regex4.test('ab')) //true, because 0 number of character in between a and b is also accepted
console.log(regex4.test('ajlsdfjsdfb')) //true, any number of characters in between a and b is accepted

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let regex5 = /^[a-z]*$/ //all letters must be lowercase
console.log(regex5.test('abcdef')) //true, all letters are lowercase
console.log(regex5.test('abcAb')) //false, A is uppercase

//quantifier
let regex6 = /^a+$/
let regex7 = /^a*$/
console.log(regex6.test('a')) //true, there is one a
console.log(regex6.test('')) //false, there must be one a
//diff between quantifier and closure
console.log(regex7.test('')) //true, because closure also contains 0

//optional
let regex8 = /^colou?r$/ //'u' may or may not appear, if appears then only
                         //appears once
console.log(regex8.test('color')) //true, 'u' doesn't appear
console.log(regex8.test('colour')) //true, 'u' appears once
console.log(regex8.test('colouur')) //false, 'u' cannot appear twice

//look ahead
//let regex9 = /^(?=.*a)$/ //look ahead for atleast one 'a'
//this gives failure because (?=) doesn't consume any space i.e
// /^(?=.*a)$/ is equivalent to /^$/ i.e doesn't consume any space

let regex9 = /^(?=.*a).+$/ //check whether string contains at least one 'a'
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console.log(regex9.test('jskdflfsfdadsfkl')) //true, contains one 'a'
console.log(regex9.test('sljkgfhlkru')) //false, doesn't contain 'a'

//Regex to check whether string contains at least one lowercase
let regex10 = /^(?=.*[a-z]).+$/
console.log(regex10.test('ASDHSDsSDFDS')) //true, contains 's'
console.log(regex10.test('JHSDSFFD')) //false, doesn't contain any lowercase

//Regex to check whether string contains at least one uppercase AND one lowercase
let regex11 = /^(?=.*[a-z])(?=.*[A-Z]).+$/
console.log(regex11.test('A')) //false, doesn't contain a lowercase
console.log(regex11.test('b')) //false, doesn't contain an uppercase
console.log(regex11.test('Ab')) //true, contains at least an uppercase and lowercase

//Regex to check whether string contains at least one uppercase OR one lowercase
let regex12 = /^(?=.*[a-z]|.*[A-Z]).+$/
console.log(regex12.test('A')) //true, contains a lowercase
console.log(regex12.test('b')) //true, contains an uppercase
console.log(regex12.test('Ab')) //true, contains an uppercase and lowercase
console.log(regex12.test('123')) //false, doesn't contains an uppercase and lowercase


let regex13 = /^.{8,}$/ //check if string is at least 8 characters long
console.log(regex13.test('abcdefgh')) //true, string is 8 characters long
console.log(regex13.test('abcdefghijk')) //true, string is > 8 characters long
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```javascript
console.log(regex13.test('abcde')) //false, string is < 8 characters long


let regex14 = /^(?=.*[^a-zA-Z0-9]).+$/ //check for symbols
//check for characters which are not [a-z], [A-Z] and [0-9]
//i.e symbols
console.log(regex14.test('ajc')) //false, no symbols
console.log(regex14.test('sldf$lksd')) //true, contains $

/*  Regex to check whether string contains at least
    1 lowercase, 1 uppercase, 1 symbol, 1 digit and must be
    8 characters long
*/
let regex_password = /^(?=.*[a-z])(?=.*[A-Z])(?=.*[^a-zA-Z0-9])(?=.*[0-9]).{8,}$/
console.log(regex_password.test('aB$12')) //false, not 8 characters long
console.log(regex_password.test('Hcoe@1234_')) //true
```