Strings JavaScript Practice Sheet

1. String Length

Question: Ek string ki length kaise find karte hain?

Code:

let str = "Hello, World!";

let length = str.length;

console.log(length); // 13

Explanation: length property se hum string ki total characters count kar sakte hain.

---

2. String Concatenation

Question: Do strings ko kaise concatenate karte hain?

Code:

let str1 = "Hello";

let str2 = "World";

let result = str1 + " " + str2;

console.log(result); // "Hello World"

Explanation: Do strings ko concatenate karne ke liye hum + operator ka use karte hain.

---

3. String to Uppercase

Question: String ko uppercase mein kaise convert karte hain?

Code:

let str = "hello world";

let upperStr = str.toUpperCase();

console.log(upperStr); // "HELLO WORLD"

Explanation: toUpperCase() method se hum string ko uppercase mein convert kar sakte hain.

---

4. String to Lowercase

Question: String ko lowercase mein kaise convert karte hain?

Code:

let str = "HELLO WORLD";

let lowerStr = str.toLowerCase();

console.log(lowerStr); // "hello world"

Explanation: toLowerCase() method se hum string ko lowercase mein convert kar sakte hain.

---

5. String Includes

Question: Kaise check karte hain ki ek string mein doosri string included hai?

Code:

let str = "Hello, World!";

let includesHello = str.includes("Hello");

console.log(includesHello); // true

Explanation: includes() method se hum check kar sakte hain ki ek string doosri string ko contain karti hai ya nahi.

---

6. String StartsWith

Question: Kaise check karte hain ki ek string kisi particular substring se start hoti hai?

Code:

```
let str = "Hello, World!";

let startsWithHello = str.startsWith("Hello");

console.log(startsWithHello); // true
```

Explanation: startsWith() method se hum check kar sakte hain ki string kisi specific substring se start hoti hai ya nahi.

---

7. String EndsWith

Question: Kaise check karte hain ki ek string kisi particular substring se end hoti hai?

Code:

```
let str = "Hello, World!";

let endsWithWorld = str.endsWith("World!");

console.log(endsWithWorld); // true
```

Explanation: endsWith() method se hum check kar sakte hain ki string kisi specific substring se end hoti hai ya nahi.

---

8. Extracting Substring

Question: Ek string se substring kaise nikaalte hain?

Code:

```
let str = "Hello, World!";

let subStr = str.substring(0, 5);

console.log(subStr); // "Hello"
```

Explanation: substring(startIndex, endIndex) method se hum string ka ek hissa nikaal sakte hain.

---

9. String IndexOf

Question: Ek string mein particular character ka index kaise nikaalte hain?

Code:

let str = "Hello, World!";

let index = str.indexOf('W');

console.log(index); // 7

Explanation: indexOf() method se hum kisi character ka pehla occurrence ka index nikaal sakte hain.

---

10. String LastIndexOf

Question: Ek string mein kisi particular character ka last index kaise nikaalte hain?

Code:

let str = "Hello, World! Hello again!";

let lastIndex = str.lastIndexOf('H');

console.log(lastIndex); // 13

Explanation: lastIndexOf() method se hum kisi character ka aakhri occurrence ka index nikaal sakte hain.

---

11. Splitting a String

Question: Ek string ko parts mein kaise split karte hain?

Code:

let str = "Hello, World!";

let parts = str.split(' ');

console.log(parts); // ["Hello,", "World!"]

Explanation: split(delimiter) method se hum string ko specified delimiter ke basis par split kar sakte hain.

12. Joining Strings

Question: Ek array of strings ko single string mein kaise join karte hain?

Code:

```
let arr = ["Hello", "World"];

let joinedStr = arr.join(' ');

console.log(joinedStr); // "Hello World"
```

Explanation: join(delimiter) method se hum array of strings ko ek single string mein join kar sakte hain.

13. Replacing Substring

Question: Ek string mein substring ko replace kaise karte hain?

Code:

```
let str = "Hello, World!";

let newStr = str.replace("World", "Universe");

console.log(newStr); // "Hello, Universe!"
```

Explanation: replace(oldSubstring, newSubstring) method se hum string mein specified substring ko replace kar sakte hain.

14. Trimming Whitespace

Question: Ek string ke aage aur peeche ke whitespaces kaise remove karte hain?

Code:

```
let str = "   Hello, World!   ";

let trimmedStr = str.trim();

console.log(trimmedStr); // "Hello, World!"
```

Explanation: trim() method se hum string ke starting aur ending whitespaces ko remove kar sakte hain.

---

15. Padding String Start

Question: Ek string ke starting mein specified characters kaise add karte hain?

Code:

```
let str = "5";

let paddedStr = str.padStart(3, '0');

console.log(paddedStr); // "005"
```

Explanation: padStart(targetLength, padString) method se hum string ke starting mein specified characters add kar sakte hain.

---

16. Padding String End

Question: Ek string ke ending mein specified characters kaise add karte hain?

Code:

```
let str = "5";

let paddedStr = str.padEnd(3, '0');

console.log(paddedStr); // "500"
```

Explanation: padEnd(targetLength, padString) method se hum string ke ending mein specified characters add kar sakte hain.

---

17. String from Char Code

Question: Char codes se string kaise banate hain?

Code:

```
let str = String.fromCharCode(72, 101, 108, 108, 111);
```

```
console.log(str); // "Hello"
```

Explanation: String.fromCharCode() method se hum char codes ko string mein convert kar sakte hain.

---

18. Character at Specific Index

Question: String ke kisi specific index par character kaise nikaalte hain?

Code:

```
let str = "Hello, World!";

let char = str.charAt(7);

console.log(char); // "W"
```

Explanation: charAt(index) method se hum string ke specified index par character nikaal sakte hain.

---

19. Char Code at Specific Index

Question: String ke kisi specific index par character ka char code kaise nikaalte hain?

Code:

```
let str = "Hello, World!";

let charCode = str.charCodeAt(7);

console.log(charCode); // 87
```

Explanation: charCodeAt(index) method se hum string ke specified index par character ka char code nikaal sakte hain.

---

20. String Repeat

Question: Ek string ko kaise repeat karte hain?

Code:

```
let str = "Hello";

let repeatedStr = str.repeat(3);

console.log(repeatedStr); // "HelloHelloHello"
```

Explanation: repeat(count) method se hum string ko specified count times repeat kar sakte hain.

---

21. String Raw

Question: Raw string literals kaise banate hain?

Code:

```
let str = String.raw`Hello\\nWorld`;

console.log(str); // "Hello\\nWorld"
```

Explanation: String.raw tag se hum raw string literals banate hain jisme escape characters ko process nahi kiya jata.

---

22. Template Literals

Question: Template literals kaise use karte hain?

Code:

```
let name = "World";

let greeting = `Hello, ${name}!`;

console.log(greeting); // "Hello, World!"
```

Explanation: Template literals ko backticks ``````` ke saath use karte hain aur variables ko ${} ke andar interpolate karte hain.

---

23. String Slice

Question: Ek string ko slice kaise karte hain?

Code:

```
let str = "Hello, World!";

let slicedStr = str.slice(0, 5);

console.log(slicedStr); // "Hello"
```

Explanation: slice(startIndex, endIndex) method se hum string ka ek portion nikaal sakte hain.

---

24. String Search

Question: Ek string mein specified value ko search

kaise karte hain?

Code:

```
let str = "Hello, World!";

let index = str.search("World");

console.log(index); // 7
```

Explanation: search() method se hum specified value ko string mein search kar sakte hain aur uska index return karte hain.

---

25. String Match

Question: Ek string ko regular expression se match kaise karte hain?

Code:

```
let str = "Hello, World!";

let matches = str.match(/o/g);

console.log(matches); // ["o", "o"]
```

Explanation: match() method se hum string ko regular expression se match karte hain aur saare matches ko return karte hain.

26. String Match All

Question: Ek string mein saare matches ko array of objects mein kaise nikaalte hain?

Code:

let str = "test1 test2 test3";

let matches = [...str.matchAll(/test\\d/g)];

console.log(matches); // [Array of match objects]

Explanation: matchAll() method se hum string mein saare matches ko array of objects ke roop mein nikaalte hain.

27. String Replace All

Question: Ek string mein saari occurrences ko replace kaise karte hain?

Code:

let str = "test1 test2 test3";

let newStr = str.replaceAll("test", "exam");

console.log(newStr); // "exam1 exam2 exam3"

Explanation: replaceAll(oldSubstring, newSubstring) method se hum string mein saari occurrences ko replace kar sakte hain.

28. String Locale Compare

Question: Do strings ko locale-specific order mein compare kaise karte hain?

Code:

let str1 = "a";

let str2 = "b";

```
let comparison = str1.localeCompare(str2);
```

```
console.log(comparison); // -1
```

Explanation: localeCompare() method se hum do strings ko locale-specific order mein compare karte hain.

---

29. String Normalize

Question: Ek string ko Unicode normalization form mein kaise convert karte hain?

Code:

```
let str = "café";
```

```
let normalizedStr = str.normalize("NFD");
```

```
console.log(normalizedStr); // "café"
```

Explanation: normalize(form) method se hum string ko specified Unicode normalization form mein convert karte hain.

---

30. String Raw Escapes

Question: Kaise raw string escapes ko show karte hain?

Code:

```
let rawStr = String.raw`Hello\\nWorld`;
```

```
console.log(rawStr); // "Hello\\nWorld"
```

Explanation: String.raw se hum raw string escapes ko exactly jaisa hai waisa show kar sakte hain.

---

31. String from Code Points

Question: Code points se string kaise banate hain?

Code:

let str = String.fromCodePoint(9731, 9733, 9842, 0x2F804);

console.log(str); // "☃★♲□"

Explanation: String.fromCodePoint() method se hum Unicode code points ko string mein convert kar sakte hain.

---

32. String Code Point at Specific Index

Question: String ke kisi specific index par code point kaise nikaalte hain?

Code:

let str = "A□B";

let codePoint = str.codePointAt(1);

console.log(codePoint); // 195076

Explanation: codePointAt(index) method se hum string ke specified index par code point nikaal sakte hain.

---

33. String Iteration

Question: Ek string ko characters mein iterate kaise karte hain?

Code:

let str = "Hello";

for (let char of str) {

  console.log(char);

}

// H

// e

// l

// l

// o

Explanation: for...of loop se hum string ke characters ko iterate kar sakte hain.

---

34. String Escape Sequences

Question: Escape sequences kaise use karte hain?

Code:

```
let str = "Hello\\nWorld";

console.log(str);

// Hello

// World
```

Explanation: \\n ek escape sequence hai jo newline character ko represent karta hai.

---

35. String Raw Templates

Question: Raw templates kaise banate hain?

Code:

```
let rawStr = String.raw`Hello\\nWorld`;

console.log(rawStr); // "Hello\\nWorld"
```

Explanation: String.raw tag se hum raw templates bana sakte hain jisme escape sequences process nahi hote.

---

36. String Search using Regular Expressions

Question: Regular expressions ka use karte hue string ko search kaise karte hain?

Code:

```
let str = "Hello, World!";
```

```
let index = str.search(/World/);
```

```
console.log(index); // 7
```

Explanation: search() method se hum regular expressions ka use karte hue string ko search kar sakte hain.

---

37. String Replace using Regular Expressions

Question: Regular expressions ka use karte hue string ko replace kaise karte hain?

Code:

```
let str = "Hello, World!";
```

```
let newStr = str.replace(/World/, "Universe");
```

```
console.log(newStr); // "Hello, Universe!"
```

Explanation: replace() method se hum regular expressions ka use karte hue string ko replace kar sakte hain.

---

38. String Splitting using Regular Expressions

Question: Regular expressions ka use karte hue string ko split kaise karte hain?

Code:

```
let str = "Hello1World2Hello3World";
```

```
let parts = str.split(/\\d/);
```

```
console.log(parts); // ["Hello", "World", "Hello", "World"]
```

Explanation: split() method se hum regular expressions ka use karte hue string ko split kar sakte hain.

---

39. String to Locale Uppercase

Question: String ko locale-specific uppercase mein kaise convert karte hain?

Code:

let str = "istanbul";

let upperStr = str.toLocaleUpperCase('tr-TR');

console.log(upperStr); // "İSTANBUL"

Explanation: toLocaleUpperCase() method se hum string ko locale-specific uppercase mein convert kar sakte hain.

---

40. String to Locale Lowercase

Question: String ko locale-specific lowercase mein kaise convert karte hain?

Code:

let str = "İSTANBUL";

let lowerStr = str.toLocaleLowerCase('tr-TR');

console.log(lowerStr); // "istanbul"

Explanation: toLocaleLowerCase() method se hum string ko locale-specific lowercase mein convert kar sakte hain.

---

41. String Unicode Escape Sequences

Question: Unicode escape sequences kaise use karte hain?

Code:

let str = "\\u0048\\u0065\\u006C\\u006C\\u006F";

console.log(str); // "Hello"

Explanation: Unicode escape sequences se hum specific Unicode characters ko string mein represent kar sakte hain.

---

42. String Octal Escape Sequences

Question: Octal escape sequences kaise use karte hain?

Code:

```
let str = "\\101\\102\\103";

console.log(str); // "ABC"
```

Explanation: Octal escape sequences se hum specific octal values ko string mein represent kar sakte hain.

---

43. String Hexadecimal Escape Sequences

Question: Hexadecimal escape sequences kaise use karte hain?

Code:

```
let str = "\\x48\\x65\\x6C\\x6C\\x6F";

console.log(str); // "Hello"
```

Explanation: Hexadecimal escape sequences se hum specific hexadecimal values ko string mein represent kar sakte hain.

---

44. String Escaped Backslashes

Question: Escaped backslashes kaise use karte hain?

Code:

```
let str = "This is a backslash: \\\\";

console.log(str); // "This is a backslash: \\"
```

Explanation: \\\\ se hum ek single backslash ko string mein represent kar sakte hain.

---

45. String Tagged Templates

Question: Tagged templates kaise use karte hain?

Code:

```
function tag(strings, ...values) {

  return strings[0] + values.map((v, i) => v + strings[i + 1]).join('');

}

let str = tag`Hello, ${'World'}!`;

console.log(str); // "Hello, World!"
```

Explanation: Tagged templates se hum template strings ko custom functions ke saath process kar sakte hain.

---

46. String Locale Specific Comparison

Question: Strings ko locale-specific tarike se compare kaise karte hain?

Code:

```
let str1 = "ä";

let str2 = "z";

let comparison = str1.localeCompare(str2, 'de-DE');

console.log(comparison); // -1
```

Explanation: localeCompare() method se hum strings ko locale-specific tarike se compare kar sakte hain.

---

47. String Indexing

Question: String ko

index ke through kaise access karte hain?

Code:

```
let str = "Hello, World!";

let char = str[7];
```

console.log(char); // "W"

Explanation: Strings ko index ke through access karne ke liye bracket notation str[index] ka use kar sakte hain.

---

48. String Splitting by Newline

Question: Ek string ko newline characters par kaise split karte hain?

Code:

```
let str = "Line1\\nLine2\\nLine3";

let lines = str.split('\\n');

console.log(lines); // ["Line1", "Line2", "Line3"]
```

Explanation: split() method se hum string ko newline characters par split kar sakte hain.

---

49. String Template Variables

Question: Template literals mein variables ko kaise include karte hain?

Code:

```
let name = "Alice";

let greeting = `Hello, ${name}!`;

console.log(greeting); // "Hello, Alice!"
```

Explanation: Template literals mein variables ko ${} ke saath include karte hain.

---

50. String Length Property

Question: String ki length property kaise use karte hain?

Code:

```
let str = "Hello, World!";
```

```
let length = str.length;
```

```
console.log(length); // 13
```

Explanation: length property se hum string ki length (characters count) ko nikaal sakte hain.