

Assignment-3

(MERN Stack)

Ques. Write a program in JavaScript to print the area and perimeter of the rectangle using prompt using various types of function declaration.

Sol.

A) Named Function

```
function perimeterNarea(l,b){  
  l = (l<0)?0:l;  
  b = (b<0)?0:b;  
  console.log("Perimeter of the rectangle: "+2*(l+b));  
  console.log("Area of the rectangle: "+(l*b));  
}
```

```
length = parseInt(prompt("Enter the length: "));  
breadth = parseInt(prompt("Enter the breadth: "));  
perimeterNarea(length, breadth);
```

Output:

```
Enter the length: 12  
Enter the breadth: 10  
Perimeter of the rectangle: 44  
Area of the rectangle: 120
```

B) Arrow Function

```
const RECT = (l,b)=>{  
  console.log("Perimeter of the rectangle: "+2*(l+b));  
  console.log("Area of the rectangle: "+(l*b));  
}
```

```
length = parseInt(prompt("Enter the length: "));  
breadth = parseInt(prompt("Enter the breadth: "));  
RECT(length, breadth);
```

Output:

```
Enter the length: 15  
Enter the breadth: 12  
Perimeter of the rectangle: 54  
Area of the rectangle: 180
```

C) Function Expression

```
function Rectangle(){  
  var area = function(l,b){  
    return l*b;  
  }  
  var perimeter = function(l,b){  
    return 2*(l+b);  
  }  
  return {area,perimeter};  
}
```

```
length = parseInt(prompt("Enter the length: "));  
breadth = parseInt(prompt("Enter the breadth: "));  
console.log("Perimeter of the rectangle: "+Rectangle().perimeter(length, breadth));  
console.log("Area of the rectangle: "+Rectangle().area(length, breadth));
```

Output:

```
Enter the length: 20  
Enter the breadth: 12  
Perimeter of the rectangle: 64  
Area of the rectangle: 240
```

D) Named Function Expression

```
function Rectangle(){  
  var area = function area(l,b){  
    return l*b;  
  }  
  var perimeter = function peri(l,b){  
    return 2*(l+b);  
  }  
  return {area,perimeter};  
}
```

```
length = parseInt(prompt("Enter the length: "));  
breadth = parseInt(prompt("Enter the breadth: "));  
console.log("Perimeter of the rectangle: "+Rectangle().perimeter(length, breadth));  
console.log("Area of the rectangle: "+Rectangle().area(length, breadth));
```

Output:

```
Enter the length: 25  
Enter the breadth: 15  
Perimeter of the rectangle: 80  
Area of the rectangle: 375
```