Practical-2

Aim: Console based node.js applications

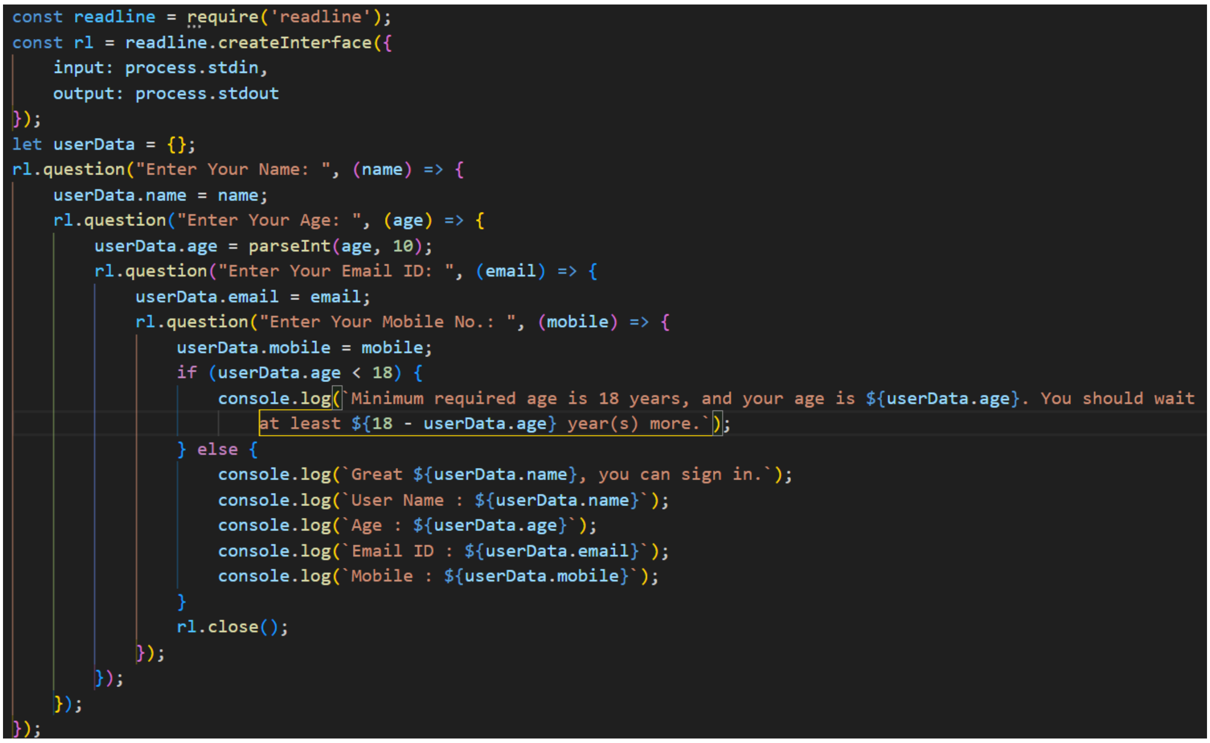
1. Write a Node.js program to create a console application to check whether a user is eligible to sign-in or not based on age.
   Description:
   Prompt the user to enter following data using ReadLine package:

   Enter Your Name
   Enter Your Age
   Enter Your Email ID
   Enter Your Mobile No.

   Rules, Logic and Condition in Entry:

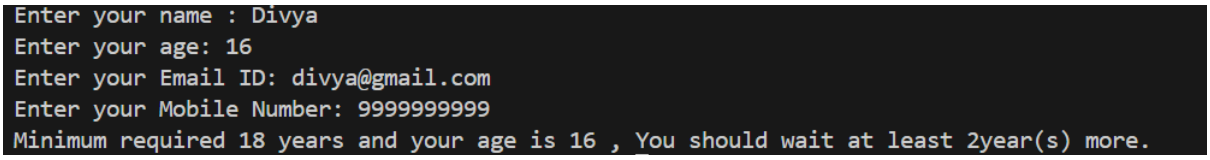
   - If Age is less than < 18 it will return and display the message:
     "Minimum required 18 years and your age is 16 , You should wait at least 2 year(s) more."
   - If Age is greater than > 18 it will return and display the message:
     “Great <UserName> you can sign in.”
     “User Name : <UserName>”
     “Age : <UserAge> “
     “Email ID : <UserEmailID>”
     “Mobile : <UserMobile>”

   Code:

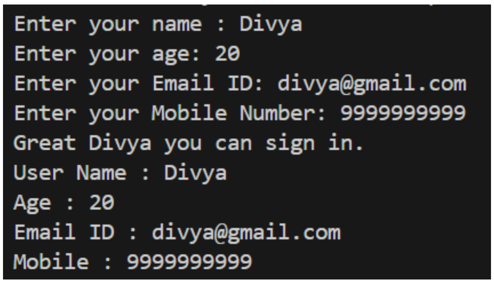


```
const readline = require('readline');
const rl = readline.createInterface({
    input: process.stdin,
    output: process.stdout
});
let userData = {};
rl.question("Enter Your Name: ", (name) => {
    userData.name = name;
    rl.question("Enter Your Age: ", (age) => {
        userData.age = parseInt(age, 10);
        rl.question("Enter Your Email ID: ", (email) => {
            userData.email = email;
            rl.question("Enter Your Mobile No.: ", (mobile) => {
                userData.mobile = mobile;
                if (userData.age < 18) {
                    console.log(`Minimum required age is 18 years, and your age is ${userData.age}. You should wait
                    at least ${18 - userData.age} year(s) more.`);
                } else {
                    console.log(`Great ${userData.name}, you can sign in.`);
                    console.log(`User Name : ${userData.name}`);
                    console.log(`Age : ${userData.age}`);
                    console.log(`Email ID : ${userData.email}`);
                    console.log(`Mobile : ${userData.mobile}`);
                }
                rl.close();
            });
        });
    });
});
```

   Output:



```
Enter your name : Divya
Enter your age: 16
Enter your Email ID: divya@gmail.com
Enter your Mobile Number: 9999999999
Minimum required 18 years and your age is 16 , You should wait at least 2year(s) more.
```

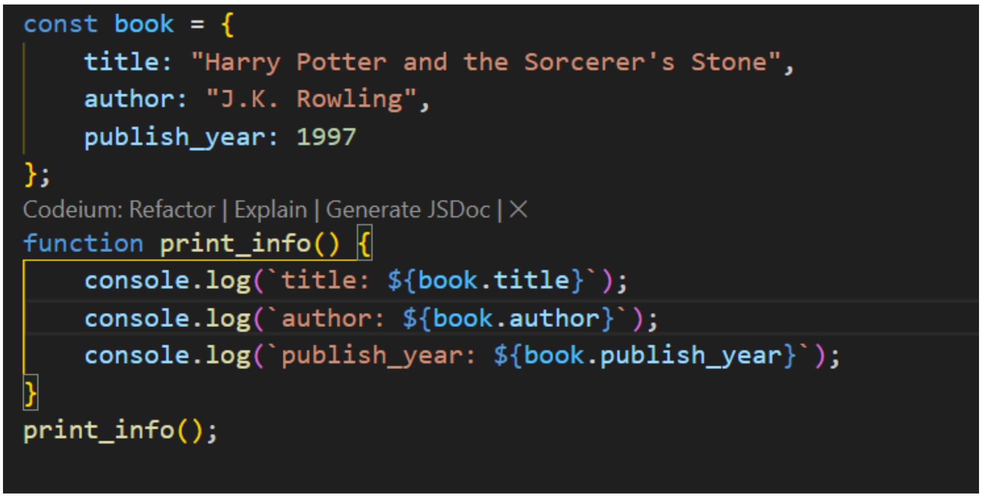


```
Enter your name : Divya
Enter your age: 20
Enter your Email ID: divya@gmail.com
Enter your Mobile Number: 9999999999
Great Divya you can sign in.
User Name : Divya
Age : 20
Email ID : divya@gmail.com
Mobile : 9999999999
```

2. Write a Node.js program to create an object named book using object literal syntax. Add book_title, author and publish_year as properties to the book object and assign it's appropriate values. Now create function print_info() to print the book object to the console so the final output looks as below:

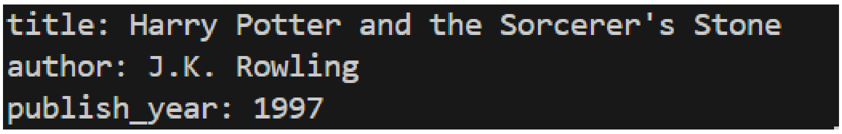
   title: Harry Potter and the Sorcerer's Stone
   author: J.K. Rowling
   publish_year: 1997

Code:



```
const book = {
    title: "Harry Potter and the Sorcerer's Stone",
    author: "J.K. Rowling",
    publish_year: 1997
};
Codeium: Refactor | Explain | Generate JSDoc | ×
function print_info() {
    console.log(`title: ${book.title}`);
    console.log(`author: ${book.author}`);
    console.log(`publish_year: ${book.publish_year}`);
}
print_info();
```

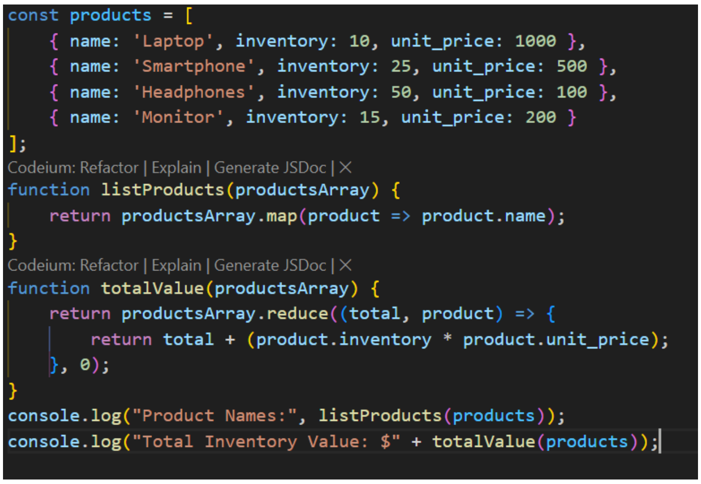
Output:



```
title: Harry Potter and the Sorcerer's Stone
author: J.K. Rowling
publish_year: 1997
```

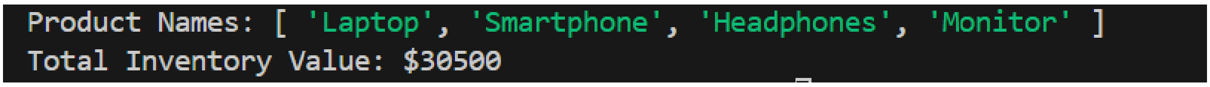
3. Create an array named products. Add objects to the array. Each object should be a single product, with 3 properties: name, inventory and unit_price. Create two functions named listProducts() and totalValue(). A listProducts() function accepts a parameter -- the array of products and it should return an array of the names of the products. A function named totalValue() should accept a parameter -- the array of products and it should return the total value of all of the products in the array. To calculate the total value of one product multiply the inventory value with the unit_price.

Code:



```
const products = [
    { name: 'Laptop', inventory: 10, unit_price: 1000 },
    { name: 'Smartphone', inventory: 25, unit_price: 500 },
    { name: 'Headphones', inventory: 50, unit_price: 100 },
    { name: 'Monitor', inventory: 15, unit_price: 200 }
];
Codeium: Refactor | Explain | Generate JSDoc | ×
function listProducts(productsArray) {
    return productsArray.map(product => product.name);
}
Codeium: Refactor | Explain | Generate JSDoc | ×
function totalValue(productsArray) {
    return productsArray.reduce((total, product) => {
        return total + (product.inventory * product.unit_price);
    }, 0);
}
console.log("Product Names:", listProducts(products));
console.log("Total Inventory Value: $" + totalValue(products));
```

Output:



```
Product Names: [ 'Laptop', 'Smartphone', 'Headphones', 'Monitor' ]
Total Inventory Value: $30500
```