

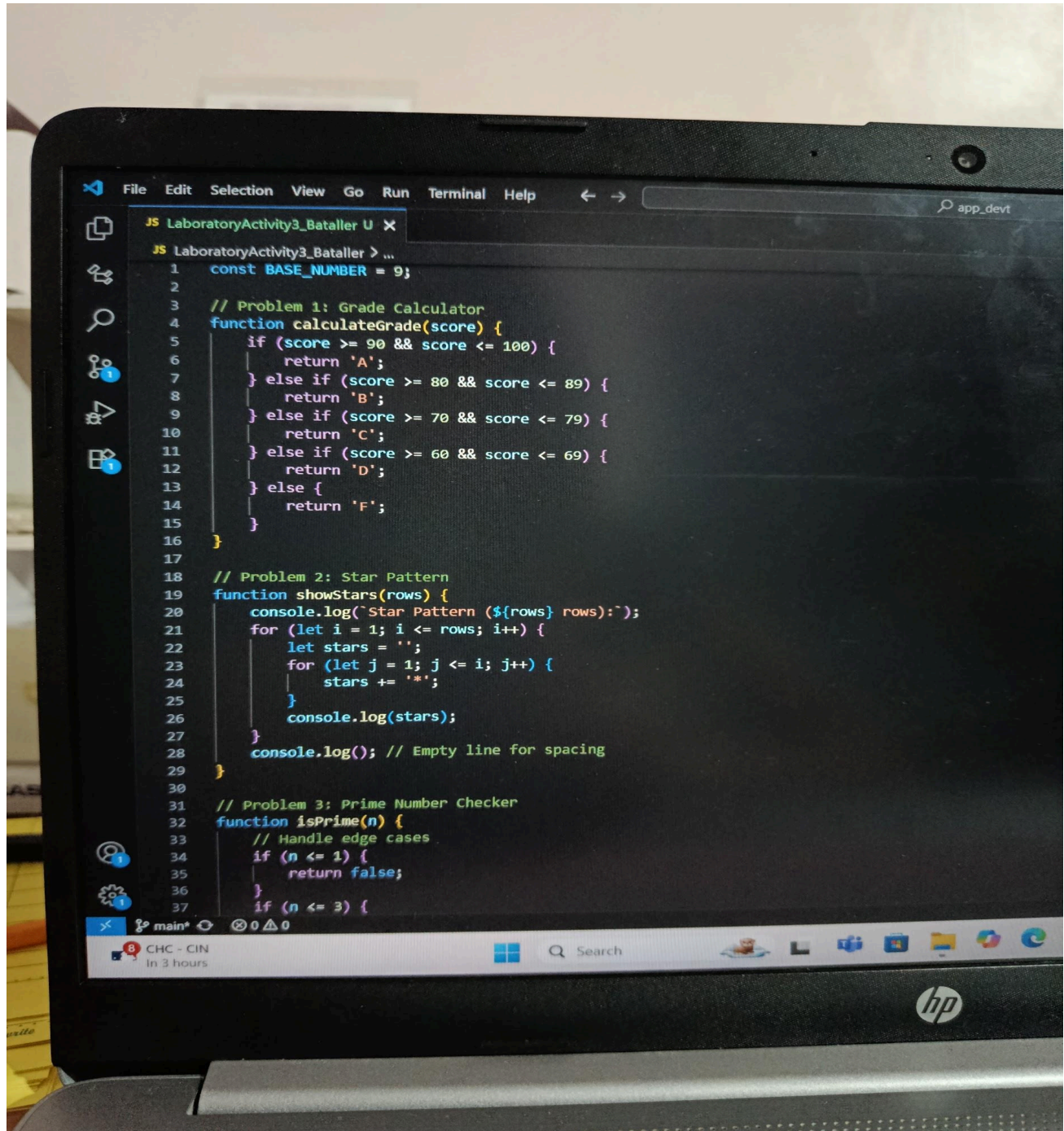
DESIREE GAIL BATALLER

BSCS 2A

APPLICATIONS DEVELOPMENT AND EMERGING TECHNOLOGIES

LABORATORY ACTIVITY 3 REPORT

Source Code



```
JS LaboratoryActivity3_Bataller U X
JS LaboratoryActivity3_Bataller > ...
1  const BASE_NUMBER = 9;
2
3  // Problem 1: Grade Calculator
4  function calculateGrade(score) {
5      if (score >= 90 && score <= 100) {
6          return 'A';
7      } else if (score >= 80 && score <= 89) {
8          return 'B';
9      } else if (score >= 70 && score <= 79) {
10         return 'C';
11     } else if (score >= 60 && score <= 69) {
12         return 'D';
13     } else {
14         return 'F';
15     }
16 }
17
18 // Problem 2: Star Pattern
19 function showStars(rows) {
20     console.log(`Star Pattern (${rows} rows):`);
21     for (let i = 1; i <= rows; i++) {
22         let stars = '';
23         for (let j = 1; j <= i; j++) {
24             stars += '*';
25         }
26         console.log(stars);
27     }
28     console.log(); // Empty line for spacing
29 }
30
31 // Problem 3: Prime Number Checker
32 function isPrime(n) {
33     // Handle edge cases
34     if (n <= 1) {
35         return false;
36     }
37     if (n <= 3) {
```

```

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app_dev

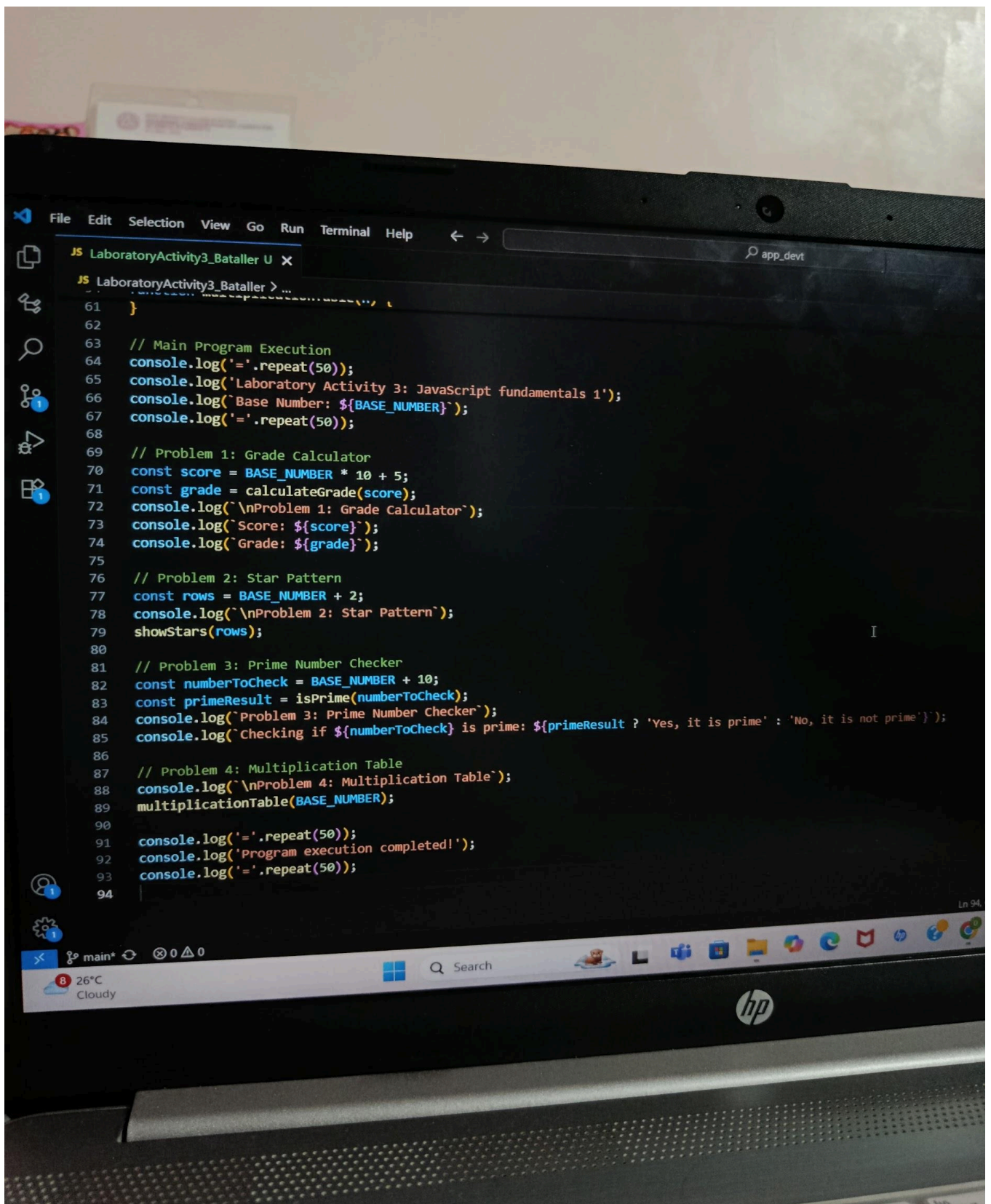
JS LaboratoryActivity3_Bataller U X
JS LaboratoryActivity3_Bataller > ...
31 // Problem 3: Prime Number Checker
32 function isPrime(n) {
33     // Handle edge cases
34     if (n <= 1) {
35         return false;
36     }
37     if (n <= 3) {
38         return true;
39     }
40     if (n % 2 === 0 || n % 3 === 0) {
41         return false;
42     }
43
44     // Check for factors from 5 onwards
45     for (let i = 5; i * i <= n; i += 6) {
46         if (n % i === 0 || n % (i + 2) === 0) {
47             return false;
48         }
49     }
50     return true;
51 }
52
53 // Problem 4: Multiplication Table
54 function multiplicationTable(n) {
55     console.log(`Multiplication Table for ${n}:`);
56     for (let i = 1; i <= 10; i++) {
57         const result = n * i;
58         console.log(`${n} x ${i} = ${result}`);
59     }
60     console.log(); // Empty line for spacing
61 }
62
63 // Main Program Execution
64 console.log('=', repeat(50));
65 console.log('Laboratory Activity 3: JavaScript fundamentals 1');
66 console.log(`Base Number: ${BASE_NUMBER}`);
67 console.log('...', repeat(50));

```

CHC - CIN
In 3 hours

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Sample Output

```

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  ✓ TERMINAL

=====
Laboratory Activity 3: JavaScript fundamentals 1
Base Number: 9
=====

Problem 1: Grade Calculator
Score: 95
Grade: A

Problem 2: Star Pattern
Star Pattern (11 rows):
*
**
***
****
*****
*****
*****
*****
*****
*****
*****

Problem 3: Prime Number Checker
Checking if 19 is prime: Yes, it is prime

Problem 4: Multiplication Table
Multiplication Table for 9:
9 x 1 = 9
9 x 2 = 18
9 x 3 = 27
9 x 4 = 36
9 x 5 = 45
9 x 6 = 54
9 x 7 = 63
9 x 8 = 72
9 x 9 = 81
9 x 10 = 90
```