

SYMBIOSIS INSTITUTE OF TECHNOLOGY, PUNE

Constituent of Symbiosis International (Deemed University), Pune

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| **Assignment No.: 04** | |
| Course Name | Programming in C Lab |
| Name of Student | Faheemuddin Sayyed |
| PRN No. | 23070122196 |
| Branch | CSE |
| Class | C-1 |
| Academic Year & Semester | 2023-2024 & Semester 2 |
| Date of Performance | 09/02/2024 |
| Assignment Title (Full): | Write a C program to find whether (using switch case)  (a) A given number is prime or composite.  (b) A given number is even or odd. |
| Theory:(Note: According to the assignment title, please write the background information as an introduction, then write the steps/logic/process/algorithm of the C program in the Journal Notebook, and add its screenshot in the below theory response.) | |
| **Theory Response:**   1. Prompt the user to choose between checking if a number is prime/composite or even/odd. 2. Accept user input for the choice (n) and the number (num). 3. Use a nested switch statement based on the user's choice (n):    * Case 1: Check if the number is prime or composite.    * Case 2: Check if the number is even or odd.    * Default: Print an error message for an invalid choice. 4. For prime or composite:    * Handle special cases (0, 1, 2).    * Use a loop to check divisibility and determine if the number is prime or composite. 5. For even or odd:    * Use the modulo operator to check parity and print the result. | |
| Output:(Note: Execute the C program as per the assignment title, take an input code and output result screenshot with the date and time from your computer, and add its screenshot in the below output response.) | |
| **Output Response:** | |
| Conclusion:(Note: Write the key findings or outcome from this assignment, enlist their potential real-world applications in Journal Notebook, and add its screenshot in the below conclusion response.) | |
| **Conclusion Response:**  The C code offers the user the choice to check whether a given number is prime or composite or if it is even or odd. It employs a switch statement to efficiently navigate between these options, incorporating loops and conditional checks for accurate results. | |

Please note that assignment content can be readable.

**Faculty Name:**

Dr. Kanhaiya Sharma

Prof. Mahesh Arse

Prof. Sachin R. Gaikwad

Prof. Surabhi Thatte