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|  |  | PUNE INSTITUTE OF COMPUTER TECHNOLOGY  PUNE - 411043 | |
| Department of Electronics & Telecommunication | |
| ASSESMENT YEAR: 2024-2025 | CLASS: SE |
| SUBJECT: DATA STRUCTURES | |
| **EXPT No:** | LAB Ref: SE/2024-25/ | Starting date: |
|  | Roll No: 22179 | Submission date: |
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|  | **Title:** | **File handling** | |
| **Problem Statement** | **Write a C program and describe, summarize the implementation of file handling. Test code for**  **.text file format.** | |
| **Programmer Name: Ansh Shah**  **Batch: H5**  ***1.Program:***  #include <stdio.h> #include <stdlib.h>  int main() { FILE \*file;  char data[100]; // Buffer for reading/writing data int choice;  while(1) {  // Menu for user choice printf("\nFile Operations Menu:\n"); printf("1. Write to the file\n"); printf("2. Read from the file\n"); printf("3. Exit\n");  printf("Enter your choice: "); scanf("%d", &choice);  getchar(); // To consume the newline character after number input  switch(choice) { case 1:  // Open the file for writing ("a" mode for appending data) file = fopen("example.txt", "a");  if (file == NULL) {  printf("Error opening file for writing.\n"); return 1;  }  DS\_LAB\_2024-25: Program input output 1 | | | |

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| // Writing to the file  printf("Enter some text to write to the file: "); fgets(data, 100, stdin); // Reading input from user fprintf(file, "%s", data); // Writing the input to the file  // Close the file after writing fclose(file);  printf("Data written to the file successfully.\n"); break;  case 2:  // Open the file for reading ("r" mode to read the file) file = fopen("example.txt", "r");  if (file == NULL) {  printf("Error opening file for reading.\n"); return 1;  }  // Reading from the file and printing to the console printf("\nContent of the file:\n");  while (fgets(data, 100, file) != NULL) { // Reading line by line printf("%s", data); // Printing each line  }  // Close the file after reading fclose(file);  break;  case 3:  // Exit the program printf("Exiting the program.\n"); exit(0);  default:  printf("Invalid choice. Please enter 1, 2, or 3.\n");  DS\_LAB\_2024-25: Program input output 2 | | | |

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| }  }  return 0;  }  /\*  File handling allows us to read from and write to files using pointers. There are various functions that are used in the process of file handling which provide a way to perform various operations which are essential for data storage and retrieval  \*/  **Output:**  File Operations Menu:   1. Write to the file 2. Read from the file 3. Exit   Enter your choice: 1  File handling allows us to read from and write to files using pointers. There are various functions that are used in the process of file handling which provide a way to perform various operations which are essential for data storage and retrieval  File Operations Menu:   * 1. Write to the file   2. Read from the file   3. Exit   Enter your choice: 2  Content of the file:  File handling in C allows reading from and writing to files using functions like fopen(), fgets(), nd fputs(), enabling efficient data storage and retrieval.  DS\_LAB\_2024-25: Program input output 3 | | | |

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| File handling allows us to read from and write to files using pointers. There are various functions that are used in the process of file handling which provide a way to perform various operations which are essential for data storage and retrieval  File Operations Menu:   1. Write to the file 2. Read from the file 3. Exit   Enter your choice: 3 Exiting the program.  Process exited after 28.22 seconds with return value 0 Press any key to continue . . .  DS\_LAB\_2024-25: Program input output 4 | | | |