PUNE INSTITUTE OF COMPUTER TECHNOLOGY

INFORMATION TECHNOLOGY

ACADEMIC YEAR -2020_21

SUB: DSA 2019 course Semester – I

DSFL ASSIGMENT NO 10 WRITUP OUTLINE

1	Title	Assignment 10: File handling
2.	Aim	Implementation of sequential file
2	Problem	Department maintains student's database. The file contains roll number,
3.	statement	name, division and address. Write a program to create a sequential file to store and maintain student data.
		It should allow the user to a) Create a student database
		b) Add a information of student
		c) Delete information of student
		d) Search and Display information of particular student.
		 If record of student does not exist an appropriate message is displayed.
		ii. If student record is found it should display the student details.
		e) Display Record of All students in tabular from
4.	Objective	
5.	Outcome	
6.	Theory	C. Theory ::
		1. What is file data structure
		2. Need for file data structure
		3. Types of file
		1. Data and code file
		2. variable vs fixed length files
		3. text vs. binary files 4. Record on how data is organized in the file (sequential index
		4. Based on how data is organized in the file (sequential, index sequential, direct access files.)
		4. File application
		5. List down various operations on the file
		6. C++ file basic : class hierarchy
		7. File open with modes, close, read, write syntaxes in C+++
		example
		8. isopen, eof meaning
		9. file pointer reposition functions – tellg,tellp, seek etc.
7.	Algorithms	Write down the pseudocode following on sequential file,
	/Pseudocode:	a) Create a student database
		b) Add a information of student
		c) Delete information of student
		d) Search and Display information of particular student.i. If record of student does not exist an appropriate message is
		displayed.
<u> </u>	1	1 displayed.

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		ii. If student record is found it should display the student
		details.
		Display Record of All students in tabular from
8.	Test	→ Validations and data set
	cases/validation	1. limit validations for n records
		2. input data validations for respective database of your choice
		3. file open validation
09	Program	Printout /Softcopy
10.	Results /output	Including test cases, validations and valid inputs based results.
11.	Conclusion	Analysis with respect to time and space complexity of insertion,
		deletion, search, update on sequential file, comparison with index
		sequential, direct access file

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