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| **Computer Engineering Department - ITU** |
| **Object Oriented Programming** |

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| **Course Instructor: Usama Bin Shakeel** | **Dated: 21/03/2022** |
| **Teaching Assistant: Aqsa Khalid** | **Semester: Spring 2022** |
| **Lab Engineer: Nadir Abbas** | **Batch: BSCE2021** |

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| ASSIGNMENT -2 |

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| NAME: NIMRA MAQBOOL |
| ROLL NO. BSCE21012 |

# **TASK 1 (FIND EVEN)**

**IN FUNCTION.CPP:**

* I DECLARED THE FILE, THEN I OPENED THE FILE.
* AFTER CHECKING THAT FILE IS OPEN.I READ THE FIRST NUMBER OF FILE THEN I SAID THAT THE READED NUMBER IS THE SIZE OF ARRAY.
* AFTER THAT I DYNAMICALLY ALLOCATE THE ARRAYS.
* THEN THE READ THE OTHER NUMBERS OF THE FILE BY APPLYING LOOP TILL THAT SIZE.
* THEN I COUNT THE NUMBER OF EVEN NUMBERS IN THE ARRAY BY ITRATTING THE COUNT IN THE CONDITION OF IF THAT NUMBER IS AN EVEN NUMBER.
* THEN I AGAIN APPLY AN LOOP AN STORE THE EVEN NUMBERS IN AN OTHER ARRAY.
* AND THEN DISPLAY THAT ARRAY.
* THEN I RETURN THE EVEN.

**FUNCTION.HEADER:**

* IN HEADER FILE I JUST WRITE THE PROTOTYPE OF FUNCTION.

**IN MAIN:**

* IN MAIN I JUST INITIALIZED THE VARIABLES.
* THEN I TOOK THE FILE NAME FROM THE USER.
* AND THEN I CALL THE FUNCTION.

**OUTPUT:**

**Graphical user interface, text

Description automatically generated**

**Text

Description automatically generated**

**TASK 2 (READ):**

**IN FUNCTION.CPP:**

* I DECLARED THE FILE, AND OPENED IT.
* AFTER CHECKING THAT THE FILE IS OPEN.
* I INITIALIZE THE STRING LINE AND THEN GET THE LINE USING GETLINE.
* THEN I APPLIED AN LOOP HAVING AN IF CONDITION TO COUNT THE NUMBER OF PAIRS.
* THEN I DISPLAYED THE PAIRS.
* THEN I APPLIED AN LOOP AND AN IF CONDITION TO STORE THE DATA OF 1 ARRAY INT THE SAME CHARACTER ARRAY.
* THEN I DISPLAYED THAT ARRAY.
* AND THEN RETURN.

**FUNCTION.HEADER:**

* IN HEADER FILE I JUST WRITE THE PROTOTYPE OF FUNCTION.

**IN MAIN:**

* I JUST INITILIZED THE PARAMETERS.
* GET THE FILE NAME USING GETLINE.
* THE I JUST CALL THE FUNCTION.

**OUTPUT:**

**A picture containing text, orange, dark, close

Description automatically generated**

**Text

Description automatically generated**

**TEST CASES:**

A picture containing text

Description automatically generated