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

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| **Course Instructor: Usama Bin Shakeel** | **Dated: 28/03/2022** |
| **Teaching Assistant: Aqsa Khalid** | **Semester: Spring 2022** |
| **Lab Engineer: Nadir Abbas** | **Batch: BSCE2021** |

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| ASSIGNMENT -3 |

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

# **TASK 1 (GET INPUT)**

**FUNCTION.CPP:**

* **IN THIS FUNCTION I HAVE ONLY GIVEN THE VALUE OF SIZE TO 1.**
* **AND THEN I CHECKED IN IF CONDITION THAT WHETHER IT IS TRUE OR FALSE.**
* **IF IT IS TRUE THEN RETURN TRUE.**
* **AND IF THE CHARCTER IS NOT EQUAL TO $ THE =N RETURN FALSE.**

**FUNCTION.H:**

* **I HAVE MADE THE STRUCT AND THEN DECLARE THE FUNCTION IN IT.**

**MAIN.CPP:**

* **I HAVE CALLED THE FUNCTIONS IN MENU.**
* **IN THIS FUNCTION I HAVE PUT AN DO WHILE AN TAKE INPUT IN THAT DO WHILE.**
* **AFTER THAT I CALLED THE FUNCTION IN DO WHILE.**
* **AND THIS DO WHILE WILL RUN UNTIL USER ENTER $.**

**OUTPUT:**

**A picture containing chart

Description automatically generated**

**TASK 2 (RESIZE ARRAY):**

**FUNCTION.CPP:**

* **IN THIS FUNCTION I HAVE PUT THE SIZE MULTIPY BY 2.**
* **THEN I PUT THE SIZE IN THE SECOND ARRAY I HAVE CREATED.**
* **THEN I STORE THE INPUT IN THE ARRAY IN STRUCT THEN I HAVE STORED THE ARRAY IN THE SECOND ARRAY WHICH IS RESIZED.**
* **THEN I DISPLAYED THE SIZE.**
* **THEN I DELETED THE NEW ARRAY.**

**FUNCTION.H:**

* **I HAVE MADE THE STRUCT AND THEN DECLARE THE FUNCTION IN IT.**

**MAIN.CPP:**

* **IN MAIN I HAVE DONE THE SAME WORK AS THE FIRST FUNCTION.**
* **BUT I HAVE ADDED AN CONDITION IN IF, THAT IS THAT IF SIZE OF THE MAIN ARRAY IS EQUAL TO THE SIZE OF RESIZED ARRAY, THEN INCREASE THE SIZE OF RESIZED ARRAY.**
* **THEN I CALLED THE FINCTION IN MAIN LIKE I DIS BEFORE.**

**OUTPUT:**

**A picture containing text

Description automatically generated**

**TASK 2 (DISPLAY ARRAY):**

**FUNCTION.CPP:**

* **ITS FUNCTION IS SAME AS THE FIRST ONE WE JUST ADDED THE DISPLAY CHARACRTER THAT WE ARE TAKING FROM USER.**

**FUNCTION.H:**

* **I HAVE MADE THE STRUCT AND THEN DECLARE THE FUNCTION IN IT.**

**MAIN.CPP:**

* **I HAVE CALLED THE FUNCTIONS IN MENU.**
* **IN THIS FUNCTION I HAVE PUT AN DO WHILE AN TAKE INPUT IN THAT DO WHILE.**
* **AFTER THAT I CALLED THE FUNCTION IN DO WHILE.**
* **AND THIS DO WHILE WILL RUN UNTIL USER ENTER $.**

**OUTPUT:**

**Text

Description automatically generated**