

SOFTWARE ENGINEERING LAB – 1

GROUP NO. 15

GROUP MEMBERS : -

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USER GUIDELINE

INTRODUCTION

The User Manual contains all essential information for the user to make full use of the software. This manual includes a description of the software functions and capabilities, contingencies and alternate modes of operation, and step-by-step procedures for software use.

WHAT IS THE PURPOSE OF SOFTWARE ?

The Software aims to provide the user information about the binary search algorithm and how to visualise it's working. The software is developed mainly for the undergraduate students in an effort to enable them to visualise the binary search algorithm.

OUTPUT FORMAT:-

START:-REPRESENTS THE STARTING INDEX OF THE CORRESPONDING ARRAY

MIDDLE:-REPRESENTS THE MIDDLE INDEX OF THE CORRESPONDING ARRAY

END :-REPRESENTS THE MIDDLE INDEX OF THE CORRESPONDING ARRAY

RESULT:- REPRESENTS THE INDEX OF THE ELEMENT TO BE SEARCHED

<i>Start</i>	<i>Middle</i>	<i>End</i>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<i><u>Result</u></i>		
<input type="text"/>		

INPUT FORMAT:-

NUMBER OF INPUT ELEMENTS:-ONLY INTEGERS ALLOWED ($<10^8$)

SEARCH:-ELEMENT TO BE SEARCHED

<i><u>Number of Input Elements</u></i>	<i><u>Search</u></i>
<input type="text"/>	<input type="text"/>

ENTER THE INPUT ELEMENTS HERE:-

SPACE SEPARATED SORTED NUMBERS (BOTH INTEGERS AND DECIMALS),
STRINGS(CONSISTING OF ONLY LOWER & UPPER CASE ENGLISH ALPHABETS
ARE ALLOWED

Enter the sorted list of elements

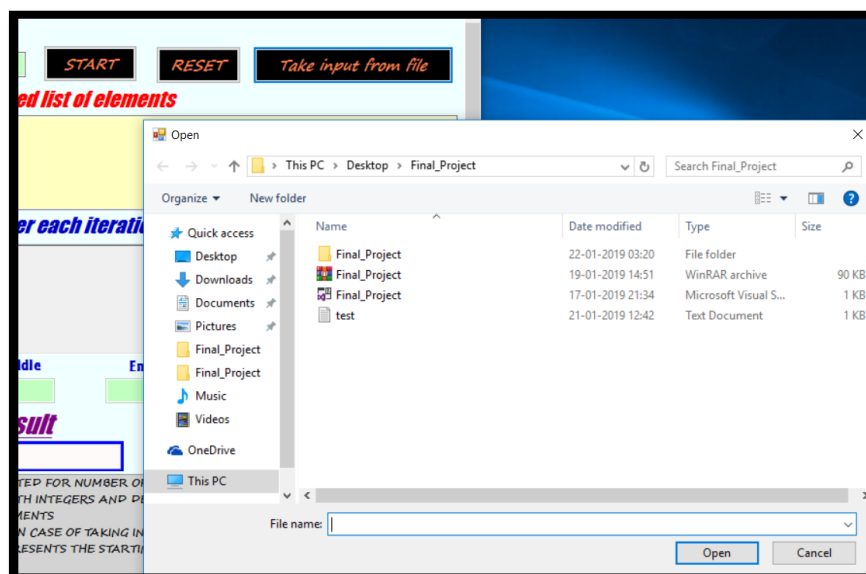
2 121 252 3541 4444 5555 6666 9898 10101 11111 11112 111134

BUTTONS:-

START :- JUST CLICK ON THIS TO START THE ALGORITHM

RESET :-CLEAR THE CONTENTS OF ALL THE TEXTBOXES

TAKE INPUT FROM FILE:- CLICK ON THIS BUTTON TO TAKE INPUT FROM THE
FILE INSTAED OF MANUALLY TYPING IT (SEE IMAGE BELOW)



CHECKBOX :-

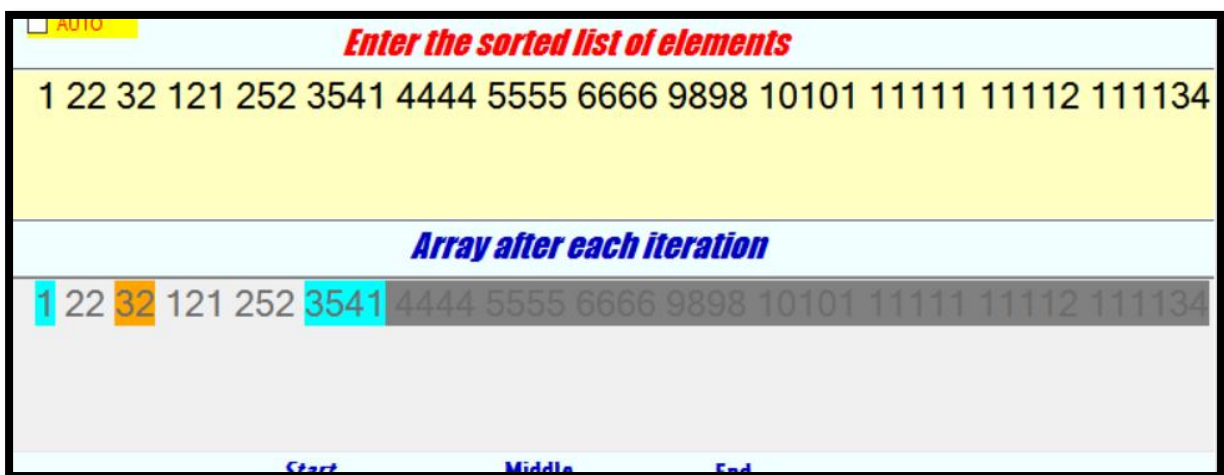
AUTO FEATURE:-

ENABLE:- ALLOWS THE USER TO VISUALISE THE COMPLETE BINARY SEARCH WITH SOME DELAY AT EACH STEP

DISABLE:- PERFORM ONE STEP AT A TIME (YOU HAVE TO MANUALLY GO TO EACH STEP BY CLICKING ON START(WHICH GETS CONVERTED INTO NEXT AFTER THE FIRST STEP)



DISPLAY:-



REPRESENTATION OF COLOURS(IN ARRAY AFTER EACH ITERATION):-

AQUA:- REPRESENTS THE LEFTMOST AND RIGHTMOST ELEMENT OF THE CURRENT ARRAY IN PROCESS

ORANGE:-REPRESENTS THE MIDDLE ELEMENT OF THE CURRENT ARRAY IN PROCESS

GREY:-REPRESENTS THE DISCARDED ARRAY WHOSE PROCESSING IS NOT REQUIRED IN FURTHER STEPS