DataEdit

***Project documentation***

1. Info about us & our school

1.1 Our school: Professional High school for Computer programming and Innovations

1.2 Our project: DataEdit

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2. Documentation content

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3. Short description and the goals of our project

4. Diagram, describing the main menu

5. Description of used functions

3. Short description and the goals of our project

The idea of our project is to create a program, based mainly on strings. We used string functions for editing, sorting and finding . These strings are stored in an array which doesn’t have a limit, so you can always add more using the “Add string” function of the main menu. There are seven functions on the menu in total. The user can use the last one to exit the program. Using some of the other functions will take the user to a sub-menu for further specifications.

4. Diagram, describing the main menu

A close up of a device

Description generated with very high confidence

5. Description of used functions

|  |  |  |  |
| --- | --- | --- | --- |
| Name of the funtion | Short description | Description of arguments | Returned  values |
| shortToLong | Sorts the array of string from shortest to longest; | string arr[] - array of strings ;  int n – number of indexes in the array of strings ; | none |
| longToShort | Sorts the array of string from longest to shortest; | string arr[] - array of strings ;  int n – number of indexes in the array of strings ; | none |
| fromAtoZ | Sorts the array of string alphabetically from A to Z ; | string arr[] - array of strings ;  int n – number of indexes in the array of strings ; | none |
| fromZtoA | Sorts the array of string alphabetically from Z to A ; | string arr[] - array of strings ;  int n – number of indexes in the array of strings ; | none |
| searchString | Tries to find a certain string in the string of arrays ; | string arr[] - array of strings ;  int n – number of indexes in the array of strings ; | none |
| searchCharacter | Tries to find all the strings containing a certain character ; | string arr[] - array of strings ;  int n – number of indexes in the array of strings ; | none |
| searchByLength | Tries to find all the strings with a certain length ; | string arr[] - array of strings ;  int n – number of indexes in the array of strings ; | none |
| eraseByIndex | Erases a part of a string, starting from an index the user choose and erasing as much characters as the user chose ; | string arr[] - array of strings ;  int n – number of indexes in the array of strings ;  int index – chosen by the user index used in multiple string funtions | none |
| checkCorrectInput | Checks if the integer choice, inputed by the user, is found in the indexArray[] array. If true, returns 1. If false, returns 0; | int indexArray[] – array with indexes chosen by other functions ;  int matchingChars – number of chars calculated by the checkCharacter() function ;  int choice – integer with a user input ; | Returns 1 if the conditions are met and 0 if not |
| checkCharacter | Checks how many of a certain character the user chose, are found in a string ; | userCharacter – string the user inputed, used in different string functions ;  int index - chosen by the user index used in multiple string funtions  int indexArray[]  string arr[] - array of strings ; | Returns the amount of matching characters in the string |
| IncorrectInput | We use this function when checkCharacter finds no characters. The user inputs another character for it to search ; | userCharacter – string the user inputed, used in different string functions ;  int index - chosen by the user index used in multiple string funtions  int indexArray[]  string arr[] - array of strings ; | Returns the amount of matching characters in the string |
| eraseByCharacters | The user chooses a character to search for in the string. If its found more than once, he has to chose one of the character’s indexes. Then a portion of the string is erased, starting from the chosen character ; | string arr[] - array of strings ;  int n – number of indexes in the array of strings ;  int index – chosen by the user index used in multiple string funtions | none |
| insertByIndex | Insert something in a string, starting from an index the user choose and inserting as much characters as the user wants; | string arr[] - array of strings ;  int n – number of indexes in the array of strings ;  int index – chosen by the user index used in multiple string functions | none |
| insertByCharacters | The user chooses a character to search for in the string. If its found more than once, he has to chose one of the character’s indexes. Then the user inserts something in the string , starting from the chosen character. | string arr[] - array of strings ;  int n – number of indexes in the array of strings ;  int index – chosen by the user index used in multiple string functions | none |
| replaceByIndex | Replace a portion of a string, starting from an index the user choose and replacing as much characters as the user wants; | string arr[] - array of strings ;  int n – number of indexes in the array of strings ;  int index – chosen by the user index used in multiple string functions | none |
| replaceByCharacters | The user chooses a character to search for in the string. If its found more than once, he has to chose one of the character’s indexes. Then the user replaces a portion of the string , starting from the chosen character. | string arr[] - array of strings ;  int n – number of indexes in the array of strings ;  int index – chosen by the user index used in multiple string functions | none |
| reportLongest | Finds the longest string in the array | string arr[] - array of strings ;  int n – number of indexes in the array of strings ; | none |
| reportShortest | Finds the shortest string in the array | string arr[] - array of strings ;  int n – number of indexes in the array of strings ; | none |
| createString | Function to used to get a string input from the user | string arr[] - array of strings ;  int n – number of indexes in the array of strings ; | none |
| addString | Function that calls upon the createString as many times as the user specifies, so we can fill the array of strings | string arr[] - array of strings ;  int n – number of indexes in the array of strings ; | none |
| printArray | Outputs all the strings inserted so far in the array of strings. | string arr[] - array of strings ;  int n – number of indexes in the array of strings ; | none |