SRM UNIVERSITY AP ANDHRA PRADESH

Introduction to Programming Using

C Project Synopsis on

" MODERN PERIODIC TABLE "

Submitted in partial fulfillment for the award of degree in

BACHELOR OF TECNOLOGY

IN

COMPUTER SCIENCE AND ENGINEERING

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CHAPTER – 1

Aim/Objective

This program helps us to know the properties of elements according the problem statement mentioned.

The project solves the problems by not searching many sources to know the properties of a single element, this provides you the information in one single program and gives you the properties by selecting the atomic number or mass number in the input.

CHAPTER – 2

2.1 – Hardware Requirement

S.NO	Hardware requirement	
I.	PROCESSOR	PENTIUM(ANY) OR AMD ATHALON(3800+-4200+DUAL – CORE)
II.	MOTHER BOARD	1.845 OR 915,995 FOR PENTIUM OR MSI K9MM-V VIAK8M800+8237R PLUS CHIPSET FOR AMD ATHALON
III.	RAM	512MB+
IV.	HARD DISK	SATA 40 GB OR ABOVE
V.	CD/DVD	(If Backup Required)
VI.	FLOPPY DRIVE	(If Backup Required)
VII.	MONITOR	14.1 or 15 – 17 inch
VIII.	Keyboard & Mouse	(Of Any Company)
IX.	PRINTER	(If printer required[Hard Copy])

2.2 – SOFTWARE REQUIREMENTS

S.NO	SOFTWARE REQUIREMENT	
I.	OPERATING SYSTEM	WINDOWS 7 & ABOVE
II.	IDE	CODE :: BLOCKS
III.	PROGRAMMING LANUAGE USED	C – LANGUAGE

CHAPTER – 3

Abstract

A quick overview of the modern periodic, explains the ordering of the periodic table and introduces concept the of periodic law. Elements were originally ordered by their equivalent weight, but this was superseded by atomic weight and then atomic number. They are arranged into vertical groups of elements with similar properties. They are many versions of the periodic table, but all obey periodic law, which states the elemental characteristics repeat themselves as one goes down the table. Development in physics, especially quantum theory and relativity, have changed the way we think about elements and periodicity.

CHAPTER – 4

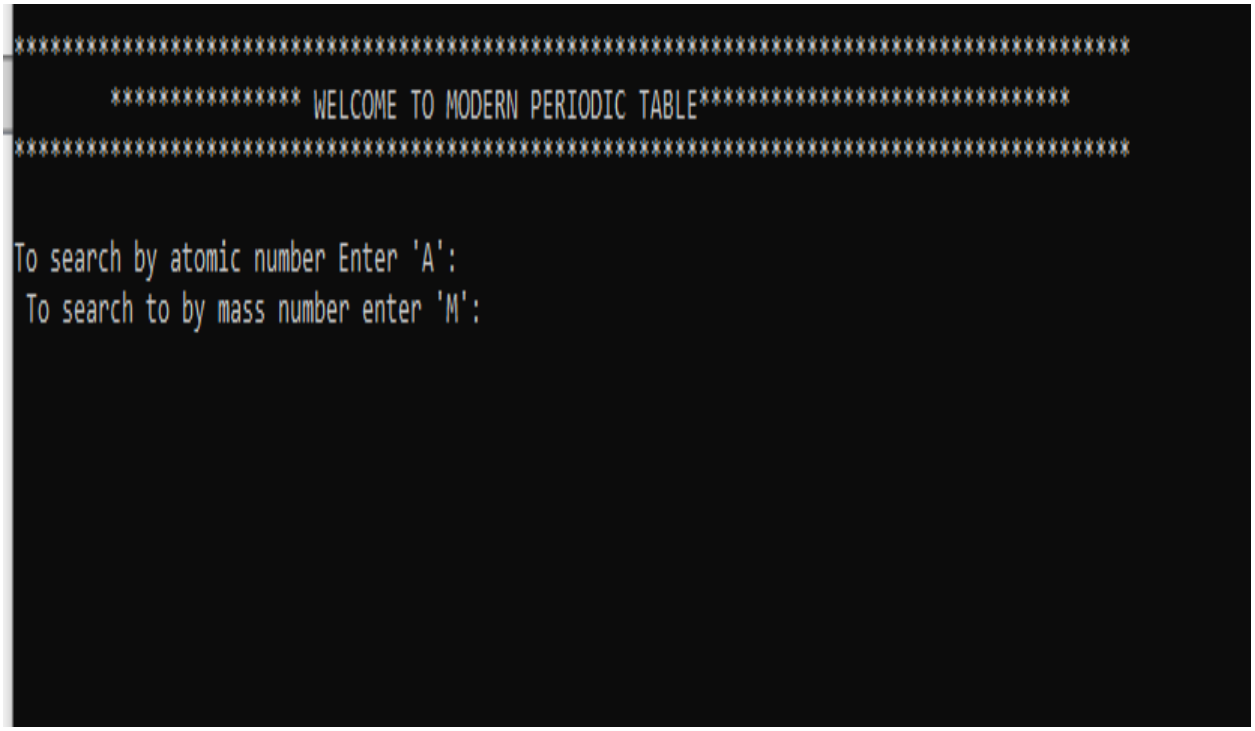
Introduction

The periodic table lists all the elements, which inform about their atomic weights, chemical symbols, and atomic numbers. The arrangement of the periodic table leads us to visualize certain trends among the atoms.

We have provided the code for modern periodic table which determines about the name of the element, symbol of the element, mass number of the element, group number of the element, period number of the element, and it also states the state of the element whether it's a solid or liquid or gas. We provided code by using if else statements.

CHAPTER – 5

Project Modules / Code



CHAPTER – 6

Algorithm

Step 1 : Start

Step 2 : Input Atomic number or Mass number of the element that you need the properties about it.

Step 3 : Check if the entered atomic or mass number is correct or not.

Step 4 : if the input is correct, the output (element name, symbol, group number & name ,block and state of the element, metal/non-metal/metalloid) will be displayed for the specified input. If the input entered is incorrect, there will be displayed that the entered input is incorrect. Then again go to step 2.If the input is correct, go to step 5.

Step 5 : Repeat the same for different atomic numbers & mass numbers.

Step 6 : Stop.

CHAPTER – 7

Input / Output

```
*************************************************************************************************
        ***************** WELCOME TO MODERN PERIODIC TABLE*****************************
*************************************************************************************************

To search by atomic number Enter 'A':
 To search to by mass number enter 'M': A

Enter the Atomic Number of Element :1

 Element name: Hydrogen
 Symbol: H
 Mass number: 1.01
 Group number: IA or 1
 Group name: Alkali metals
 Period number: 1
 Block: s-block
 Physical state: Gas
 It is Non-metal

Process returned 0 (0x0)   execution time : 12.871 s
Press any key to continue.
```

```
*************************************************************************************************
        ***************** WELCOME TO MODERN PERIODIC TABLE*****************************
*************************************************************************************************

To search by atomic number Enter 'A':
 To search to by mass number enter 'M': M

Enter the Mass number of the Element :4.00

 Element name: Helium
 Symbol: He
 Atomic number: 2
 Group number: 0 or 18
 Group name: Noble gases
 Period number: 1
 Block: p-block
 Physical state: Gas
 It is Non-metal

Process returned 0 (0x0)   execution time : 19.297 s
Press any key to continue.
```

CHAPTER – 8

End User

- All elements are fundamentally arranged according to their atomic numbers. So it becomes easy to understand and compare their properties, there by making it easier to remember the position of the elements.

- The position of the elements in the periodic table makes it easy to predict and compare their properties, and explains the reason for their specific position in the periodic table.

- It gives explanation for the periodicity of elements and tells the reason why all elements in a group having similar properties, which differ between the groups and periods

CHAPTER – 9

Conclusion

Finally, we can say that the programming of modern periodic table reduces the time to search in books and provides total information about element.

THANK YOU