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| S.B.O.A School and Junior College |
| A C++ Project: Periodic Table |
| //Using Files and Graphics |

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| --- |
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ALGORITHM

START

struct element:

Public:

atno (int) - For storing atomic number of all elements

sym (char) - For storing symbols of all elements

ele\_name (char[20]) - For storing names of all elements

atwt (float) - For storing atomic weight of all elements

at\_con (char[150]) - For storing orbital configuration of all elements

Start ():

1. border() is initiated for border.
2. atno() is called for the initial chart.
3. Initialize char ‘a’ for storing in after the user types.
4. If the char is ‘s’ given by user – sblock() is called.
5. Else if the given char is ‘p’ – pblock() is called.
6. Else if the given char is ‘d’ – dblock() is called.
7. Else if the given char is ‘f’ – fblock() is called.
8. Else if the user wants to quit ESC key is pressed.

Output():

//The last page of this program.

1. Temporary object of ‘element’ is created for storing data.
2. File is opened by constructor using object in \*.dat mode.
3. eof() checks if the file reaches end point.
4. File is read record by record and checked if the record at\_no matches the parameter at\_no.
5. If it matches display() is called using the same object.
6. The file is closed.
7. A key is pressed to start the whole process again.

atno():

//The first page of this program

1. All the required variables are declared.
2. For loop is initialized for making a grid appearance to show the atomic numbers.
3. The text shape, size and font is adjusted to the required values and the heading is printed on top.
4. All the atomic numbers are given according to the Periodic Table with appropriate colours for each group.

Border():

1. Variables m1 and m2 are declared for storing mid values of x and y co-ordinates.
2. 2 rectangle functions are used to make outline of the screen
3. The text “Periodic Table” is shown at the top of the screen.

Sblock():

1. The text style, shape and size are set to the appropriate values.
2. Heading “S-Block” is displayed at a location.
3. Required variables are declared for for-loops.
4. For loops are initialized and all the boxes and letters appear at the respective locations.
5. A legend is displayed at an appropriate location on the same page.
6. A navigation box is created for moving and choosing the desired element on the screen by the user.
7. Switch-Case is used for the movement and the selection of the required elements.
8. For loop is used till this point and is exited when the user presses ESC button.
9. A key is pressed and the function exits.

Pblock():

1. The text style, shape and size are set to the appropriate values.
2. Heading “P-Block” is displayed at a location.
3. Required variables are declared for for-loops.
4. For loops are initialized and all the boxes and letters appear at the respective locations.
5. A legend is displayed at an appropriate location on the same page.
6. A navigation box is created for moving and choosing the desired element on the screen by the user.
7. Switch-Case is used for the movement and the selection of the required elements.
8. For loop is used till this point and is exited when the user presses ESC button.
9. A key is pressed and the function exits.

Dblock():

1. The text style, shape and size are set to the appropriate values.
2. Heading “D-Block” is displayed at a location.
3. Required variables are declared for for-loops.
4. For loops are initialized and all the boxes and letters appear at the respective locations.
5. A legend is displayed at an appropriate location on the same page.
6. A navigation box is created for moving and choosing the desired element on the screen by the user.
7. Switch-Case is used for the movement and the selection of the required elements.
8. For loop is used till this point and is exited when the user presses ESC button.
9. A key is pressed and the function exits.

Fblock():

1. The text style, shape and size are set to the appropriate values.
2. Heading “F-Block” is displayed at a location.
3. Required variables are declared for for-loops.
4. For loops are initialized and all the boxes and letters appear at the respective locations.
5. A legend is displayed at an appropriate location on the same page.
6. A navigation box is created for moving and choosing the desired element on the screen by the user.
7. Switch-Case is used for the movement and the selection of the required elements.
8. For loop is used till this point and is exited when the user presses ESC button.
9. A key is pressed and the function exits.

Main():

1. Graphics is initialized legally.
2. Border() is called for displaying the border on screen.
3. The text style, shape and size are set to the appropriate values.
4. Start() is called for viewing all the contents and options.

STOP

SOURCE CODE

//Periodic Table – Source Code

//defining required headers

#include<fstream.h>

#include<iostream.h>

#include<conio.h>

#include<graphics.h>

#include<stdio.h>

#include<dos.h>

#include<stdlib.h>

#include<string.h>

#include<process.h>

//defining commonly used variables

#define up 72

#define down 80

#define right 77

#define left 75

#define esc 27

#define enter 13

//defining prototypes

void start();

void output(int a);

void atno();

void border();

void sblock();

void pblock();

void dblock();

void fblock();

//---------------------------------------------------------------------------

struct element

{

int at\_no;

char sym[3];

char ele\_name[20];

float at\_wt;

char at\_con[150];

void display()

{

cout<<'\n'<<'\n'<<'\n'<<'\n'<<'\n'<<'\n'<<'\n';

cout<<"\n\tAtomic number: "<<at\_no;

cout<<"\n\n\tSymbol: "<<sym;

cout<<"\n\n\tName: "<<ele\_name;

cout<<"\n\n\tAtomic weight: "<<at\_wt;

cout<<"\n\n\tElectronic Configuration: "<<at\_con;

border();

}

}e[118]={{1,"H","Hydrogen",1.008,"1s-1"},

{2,"He","Helium",4.003,"1s-2"},

{3,"Li","Lithium",6.941,"1s-2 2s-1"},

{4,"Be","Beryllium",9.012,"1s-2 2s-2"},

{5,"B","Boron",10.811,"1s-2 2s-2 2p-1"},

{6,"C","Carbon",12.011,"1s-2 2s-2 2p-2"},

{7,"N","Nitrogen",14.007,"1s-2 2s-2 2p-3"},

{8,"O","Oxygen",15.999,"1s-2 2s-2 2p-4"},

{9,"F","Flourine",18.998,"1s-2 2s-2 2p-5"},

{10,"Ne","Neon",20.180,"1s-2 2s-2 2p-6"},

{11,"Na","Sodium",22.990,"1s-2 2s-2 2p-6 3s-1"},

{12,"Mg","Magnesium",24.305,"1s-2 2s-2 2p-6 3s-2"},

{13,"Al","Aluminium",25.982,"1s-2 2s-2 2p-6 3s-2 3p-1"},

{14,"Si","Silicon",28.086,"1s-2 2s-2 2p-6 3s-2 3p-2"},

{15,"P","Phosphorous",30.974,"1s-2 2s-2 2p-6 3s-2 3p-3"},

{16,"S","Sulphur",32.066,"1s-2 2s-2 2p-6 3s-2 3p-4"},

{17,"Cl","Chlorine",35.453,"1s-2 2s-2 2p-6 3s-2 3p-5"},

{18,"Ar","Argon",39.948,"1s-2 2s-2 2p-6 3s-2 3p-6"},

{19,"K","Potassium",39.098,"1s-2 2s-2 2p-6 3s-2 3p-6 4s-1"},

{20,"Ca","Calcium",40.078,"1s-2 2s-2 2p-6 3s-2 3p-6 4s-2"},

{21,"Sc","Scandium",44.956,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-1 4s-2"},

{22,"Ti","Titanium",47.880,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-2 4s-2"},

{23,"V","Vanadium",50.942,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-3 4s-2"},

{24,"Cr","Chromium",51.996,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-5 4s-1"},

{25,"Mn","Manganese",54.938,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-5 4s-2"},

{26,"Fe","Iron",55.993,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-6 4s-2"},

{27,"Co","Cobalt",58.933,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-7 4s-2"},

{28,"Ni","Nickel",58.693,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-8 4s-2"},

{29,"Cu","Copper",63.546,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-1"},

{30,"Zn","Zinc",65.390,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2"},

{31,"Ga","Gallium",69.732,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-1"},

{32,"Ge","Germanium",72.610,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-2"},

{33,"As","Arsenic",74.922,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-3"},

{34,"Se","Selenium",78.090,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-4"},

{35,"Br","Bromine",79.904,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-5"},

{36,"Kr","Krypton",84.800,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6"},

{37,"Rb","Rubidium",84.468,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 5s-1"},

{38,"Sr","Strontium",87.620,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 5s-2"},

{39,"Y","Yttrium",88.906,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 5s-2 4d-1"},

{40,"Zr","Zirconium",91.224,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 5s-2 4d-2"},

{41,"Nb","Niobium",92.906,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 5s-1 4d-4"},

{42,"Mo","Molybdenum",95.940,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 5s-1 4d-5"},

{43,"Tc","Technetium",98.907,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 5s-1 4d-6"},

{44,"Ru","Ruthenium",101.070,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 5s-1 4d-7"},

{45,"Rh","Rhodium",102.906,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 5s-1 4d-8"},

{46,"Pd","Palladium",106.42,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10"},

{47,"Ag","Silver",107.868,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-1"},

{48,"Cd","Cadmium",112.411,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2"},

{49,"In","Indium",114.818,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-1"},

{50,"Sn","Tin",118.710,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-2"},

{51,"Sb","Antimony",121.750,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-3"},

{52,"Te","Tellurium",127.600,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-4"},

{53,"I","Iodine",126.904,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-5"},

{54,"Xe","Xenon",131.290,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6"},

{55,"Cs","Caesium",132.105,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 6s-1"},

{56,"Ba","Barium",137.327,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 6s-2"},

{57,"La","Lanthanum",138.906,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 6s-2 5d-1"},

{58,"Ce","Cerium",140.115,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 6s-2 4f-2"},

{59,"Pr","Praseodymium",140.908,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 6s-2 4f-3"},

{60,"Nd","Neodymium",144.240,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 6s-2 4f-4"},

{61,"Pm","Promethium",144.193,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 6s-2 4f-5"},

{62,"Sm","Samarium",150.360,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 6s-2 4f-6"},

{63,"Eu","Europium",151.966,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 6s-2 4f-7"},

{64,"Gd","Gadolinium",157.250,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 6s-2 4f-7 5d-1"},

{65,"Tb","Terbium",158.925,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 6s-2 4f-9"},

{66,"Dy","Dysprosium",162.50,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 6s-2 4f-10"},

{67,"Ho","Holmium",164.930,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 6s-2 4f-11"},

{68,"Er","Erbium",167.26,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 6s-2 4f-12"},

{69,"Tm","Thulium",168.934,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 6s-2 4f-13"},

{70,"Yb","Yttrbium",173.040,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 6s-2 4f-14"},

{71,"Lu","Lutetium",174.957,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 6s-2 4f-14 5d-1"},

{72,"Hf","Hafnium",178.490,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 6s-2 4f-14 5d-2"},

{73,"Ta","Tantalum",180.948,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 6s-2 4f-14 5d-3"},

{74,"W","Tungsten",183.850,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 6s-2 4f-14 5d-4"},

{75,"Re","Rhenium",186.207,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 6s-2 4f-14 5d-5"},

{76,"Os","Osmium",190.23,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 6s-2 4f-14 5d-6"},

{77,"Ir","Iridium",192.220,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 4f-14 5d-9"},

{78,"Pt","Platinum",195.080,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 4f-14 5d-9 6s-1"},

{79,"Au","Gold",196.967,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 4f-14 5d-10 6s-1"},

{80,"Hg","Mercury",200.590,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 4f-14 5d-10 6s-2"},

{81,"Tl","Thallium",204.383,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 4f-14 5d-10 6s-2 6p-1"},

{82,"Pb","Lead",207.200,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 4f-14 5d-10 6s-2 6p-2"},

{83,"Bi","Bismuth",208.980,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 4f-14 5d-10 6s-2 6p-3"},

{84,"Po","Polonium",208.982,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 4f-14 5d-10 6s-2 6p-4"},

{85,"At","Astatine",209.987,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 4f-14 5d-10 6s-2 6p-5"},

{86,"Rn","Radon",222.018,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 4f-14 5d-10 6s-2 6p-6"},

{87,"Fr","Francium",223.020,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 4f-14 5d-10 6s-2 6p-6 7s-1"},

{88,"Ra","Radium",226.025,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 4f-14 5d-10 6s-2 6p-6 7s-2"},

{89,"Ac","Actinium",227.028,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 4f-14 5d-10 6s-2 6p-6 7s-2 6d-1"},

{90,"Th","Thorium",251.080,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 4f-14 5d-10 6s-2 6p-6 7s-2 6d-2"},

{91,"Pa","Proactinium",231.036,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 4f-14 5d-10 6s-2 6p-6 6d-1 5f-2"},

{92,"U","Uranium",238.029,"1s-2 2s-2 2p-6 3s-2 3p-6 3d-10 4s-2 4p-6 4d-10 5s-2 5p-6 4f-14 5d-10 6s-2 6p-6 6d-1 5f-3"},

{93,"Np","Neptunium",237.048,"NA"},

{94,"Pu","Plutonium",244.064,"NA"},

{95,"Am","Americium",243.061,"NA"},

{96,"Cm","Curium",247.070,"NA"},

{97,"Bk","Berkelium",247.070,"NA"},

{98,"Cf","Californium",251.080,"NA"},

{99,"Es","Einsteinium",254.0,"NA"},

{100,"Fm","Fermium",257.095,"NA"},

{101,"Md","Mendelivium",258.100,"NA"},

{102,"No","Nobelium",259.101,"NA"},

{103,"Lr","Lawrencium",262.0,"NA"},

{104,"Rf","Rutherfordium",261.0,"NA"},

{105,"Db","Dubnium",262.0,"NA"},

{106,"Sg","Seaborghium",256.0,"NA"},

{107,"Bh","Bhorium",264.0,"NA"},

{108,"Hs","Hassium",269.0,"NA"},

{109,"Mt","Meitnerium",268.0,"NA"},

{110,"Ds","Darmstadtium",269.0,"NA"},

{111,"Rg","Roentgenium",272.0,"NA"},

{112,"Cn","Coppernicium",277.0,"NA"},

{113,"Uut","Ununtrium",0,"NA"},

{114,"Fl","Flevorium",289.0,"NA"},

{115,"Uup","Ununpentium",0,"NA"},

{116,"Lv","Livermorium",298.0,"NA"},

{117,"Uus","Ununseptium",0,"NA"},

{118,"Uuo","Ununoctium",0,"NA"}

};

//---------------------------------------------------------------------------

void start()

{

clrscr();

cleardevice();

border();

atno();

char c;

loop :

{

c=getch();

if(c=='s')

sblock();

else if(c=='p')

pblock();

else if(c=='d')

dblock();

else if(c=='f')

fblock();

else if(c==esc)

{

cleardevice();

setcolor(15);

settextstyle(8,0,3);

border();

settextstyle(0,0,2);

outtextxy(230,100,"THANK YOU !!");

delay(1000);

exit(0);

}

else { sound(100);

delay(50);

nosound();

goto loop;

}

}

}

//-------------------------------------------------------------------------

void output(int a)

{

cleardevice();

element ee;

ifstream f("ele.dat",ios::in|ios::binary);

while(!f.eof())

{

if(f)

{

f.read((char\*)&ee,sizeof(ee));

if(a==ee.at\_no)

ee.display();

}

}

f.close();

gotoxy(15,20);

cout<<"Please press ENTER key to continue...";

getch();

start();

}

//---------------------------------------------------------------------------

void atno()

{

int b=0,c=0,d=0,e=0,f=0,g=0,h=0,i=0,j=0,k=0,l=0,m=0,n=0,o=0,p=0,q=0,r=0;

for(int ii=0;ii<9;ii++)

{

rectangle(51,110+b,111,150+b); b+=40;

rectangle(81,110+c,141,150+c); c+=40;

rectangle(111,110+d,171,150+d); d+=40;

rectangle(141,110+e,204,150+e); e+=40;

rectangle(171,110+f,231,150+f); f+=40;

rectangle(204,110+g,261,150+g); g+=40;

rectangle(231,110+h,291,150+h); h+=40;

rectangle(261,110+i,321,150+i); i+=40;

rectangle(291,110+j,351,150+j); j+=40;

rectangle(321,110+k,381,150+k); k+=40;

rectangle(351,110+l,411,150+l); l+=40;

rectangle(381,110+m,441,150+m); m+=40;

rectangle(411,110+n,471,150+n); n+=40;

rectangle(441,110+o,504,150+o); o+=40;

rectangle(471,110+p,531,150+p); p+=40;

rectangle(504,110+q,561,150+q); q+=40;

rectangle(531,110+r,591,150+r); r+=40;

}

settextstyle(0,0,0);

outtextxy(246,60,"Atomic Number Chart");

line(245,75,396,75);

//numbering

//p1

setcolor(12);

outtextxy(64,127,"1");

setcolor(7);

outtextxy(573,127,"2");

//p2

setcolor(4);

outtextxy(64,166,"3");

setcolor(10);

outtextxy(94,166,"4");

setcolor(1);

outtextxy(424,166,"5");

setcolor(9);

outtextxy(454,166,"6");

outtextxy(484,166,"7");

outtextxy(514,166,"8");

setcolor(6);

outtextxy(544,166,"9");

setcolor(7);

outtextxy(570,166,"10");

//p3

setcolor(4);

outtextxy(60,206,"11");

setcolor(10);

outtextxy(90,206,"12");

setcolor(2);

outtextxy(420,206,"13");

setcolor(1);

outtextxy(450,206,"14");

setcolor(9);

outtextxy(480,206,"15");

outtextxy(510,206,"16");

setcolor(6);

outtextxy(540,206,"17");

setcolor(7);

outtextxy(570,206,"18");

//p4

setcolor(4);

outtextxy(60,246,"19");

setcolor(10);

outtextxy(90,246,"20");

setcolor(14);

outtextxy(120,246,"21");

outtextxy(150,246,"22");

outtextxy(180,246,"23");

outtextxy(210,246,"24");

outtextxy(240,246,"25");

outtextxy(270,246,"26");

outtextxy(300,246,"27");

outtextxy(330,246,"28");

outtextxy(360,246,"29");

outtextxy(390,246,"30");

setcolor(2);

outtextxy(420,246,"31");

setcolor(1);

outtextxy(450,246,"32");

outtextxy(480,246,"33");

setcolor(9);

outtextxy(510,246,"34");

setcolor(6);

outtextxy(540,246,"35");

setcolor(7);

outtextxy(570,246,"36");

//p5

setcolor(4);

outtextxy(60,286,"37");

setcolor(10);

outtextxy(90,286,"38");

setcolor(14);

outtextxy(120,286,"39");

outtextxy(150,286,"40");

outtextxy(180,286,"41");

outtextxy(210,286,"42");

outtextxy(240,286,"43");

outtextxy(270,286,"44");

outtextxy(300,286,"45");

outtextxy(330,286,"46");

outtextxy(360,286,"47");

outtextxy(390,286,"48");

setcolor(2);

outtextxy(420,286,"49");

outtextxy(450,286,"50");

setcolor(1);

outtextxy(480,286,"51");

outtextxy(510,286,"52");

setcolor(6);

outtextxy(540,286,"53");

setcolor(7);

outtextxy(570,286,"54");

//p6

setcolor(4);

outtextxy(60,326,"55");

setcolor(10);

outtextxy(90,326,"56");

setcolor(7);

outtextxy(120,326,"Ln");

setcolor(14);

outtextxy(150,326,"72");

outtextxy(180,326,"73");

outtextxy(210,326,"74");

outtextxy(240,326,"75");

outtextxy(270,326,"76");

outtextxy(300,326,"77");

outtextxy(330,326,"78");

outtextxy(360,326,"79");

outtextxy(390,326,"80");

setcolor(2);

outtextxy(420,326,"81");

outtextxy(450,326,"82");

outtextxy(480,326,"83");

setcolor(1);

outtextxy(510,326,"84");

setcolor(6);

outtextxy(540,326,"85");

setcolor(7);

outtextxy(570,326,"86");

//p7

setcolor(4);

outtextxy(60,365,"87");

setcolor(10);

outtextxy(90,365,"88");

setcolor(7);

outtextxy(120,365,"Ac");

setcolor(14);

outtextxy(146,365,"104");

outtextxy(176,365,"105");

outtextxy(206,365,"106");

outtextxy(236,365,"107");

outtextxy(266,365,"108");

outtextxy(296,365,"109");

outtextxy(326,365,"110");

outtextxy(356,365,"111");

outtextxy(386,365,"112");

setcolor(2);

outtextxy(416,365,"113");

outtextxy(446,365,"114");

outtextxy(476,365,"115");

outtextxy(506,365,"116");

setcolor(6);

outtextxy(536,365,"117");

setcolor(7);

outtextxy(566,365,"118");

//Ln-S

setcolor(13);

outtextxy(90,405,"57");

outtextxy(120,405,"58");

outtextxy(150,405,"59");

outtextxy(180,405,"60");

outtextxy(210,405,"61");

outtextxy(240,405,"62");

outtextxy(270,405,"63");

outtextxy(300,405,"64");

outtextxy(330,405,"65");

outtextxy(360,405,"66");

outtextxy(390,405,"67");

outtextxy(420,405,"68");

outtextxy(450,405,"69");

outtextxy(480,405,"70");

outtextxy(510,405,"71");

//Ac-S

setcolor(13);

outtextxy(90,443,"89");

outtextxy(120,443,"90");

outtextxy(150,443,"91");

outtextxy(180,443,"92");

outtextxy(210,443,"93");

outtextxy(240,443,"94");

outtextxy(270,443,"95");

outtextxy(300,443,"96");

outtextxy(330,443,"97");

outtextxy(360,443,"98");

outtextxy(388,443,"99");

outtextxy(418,443,"100");

outtextxy(448,443,"101");

outtextxy(478,443,"102");

outtextxy(508,443,"103");

//mapping

//prds

setcolor(11);

outtextxy(30,125,"A");

outtextxy(30,165,"B");

outtextxy(30,205,"C");

outtextxy(30,245,"D");

outtextxy(30,285,"E");

outtextxy(30,325,"F");

outtextxy(30,365,"G");

outtextxy(30,405,"H");

outtextxy(30,445,"I");

//gps

outtextxy(64,90,"1");

outtextxy(94,90,"2");

outtextxy(124,90,"3");

outtextxy(154,90,"4");

outtextxy(184,90,"5");

outtextxy(214,90,"6");

outtextxy(244,90,"7");

outtextxy(274,90,"8");

outtextxy(304,90,"9");

outtextxy(330,90,"10");

outtextxy(360,90,"11");

outtextxy(390,90,"12");

outtextxy(420,90,"13");

outtextxy(450,90,"14");

outtextxy(480,90,"15");

outtextxy(510,90,"16");

outtextxy(540,90,"17");

outtextxy(570,90,"18");

}

//------------------------------------------------------------------------

void border()

{

settextstyle(0,0,0);

int mi1,mi2;

rectangle(10,10,getmaxx(),getmaxy());

rectangle(12,12,getmaxx()-2,getmaxy()-2);

mi1=getmaxx()/2;

outtextxy(mi1-50,20,"Periodic Table");

}

//------------------------------------------------------------------------

void sblock()

{

cleardevice();

settextstyle(8,0,5);

setcolor(10);

outtextxy(300,100,"S-BLOCK");

int n=0,i=0; // n-no of blocks and i for coordinates

setcolor(BLACK);

for(n=0;n<7;n++)

{

if(n==0)

{

setfillstyle(1,11); //color of first box

}

else

{

setfillstyle(1,12);

}

bar(20,20+i,50,50+i);

delay(50); //inc y coordinates oy 60

i+=60; //60 is standard spacing between two coordinates

} //of consequtive boxes

delay(100);

i=0;

for(n=0;n<6;n++)

{

setfillstyle(1,13);

bar(80,80+i,110,110+i);

delay(50);

i+=60;

}

delay(100);

// for some reason I need to add a dummy string {"."}

char ch1[][7]={{"."},{"H"},{"Li"},{"Na"},{"K"},{"Rb"},{"Cs"},{"Fr"}};

char ch2[][6]={{"."},{"Be"},{"Mg"},{"Ca"},{"Sr"},{"Ba"},{"Ra"}};

settextstyle(0,0,1); // declaring 2d string

for(i=0,n=0;i<=420,n<7;i+=60,n++)

{

outtextxy(30,30+i,&ch1[n][7]);

delay(50);

}

delay(100); // arranging string in their respective boxes

for(i=0,n=0;i<=360,n<6;i+=60,n++)

{

outtextxy(90,90+i,&ch2[n][6]);

delay(50);

}

delay(100);

n=10;

for(i=0;i<180;i+=60) // this is for key

{

n++;

setfillstyle(1,n);

bar(290,260+i,310,280+i);

delay(50);

}

delay(100);

settextstyle(2,0,4); // writing key

setcolor(WHITE);

outtextxy(320,260,"Special element");

outtextxy(320,320,"Alkali metals");

outtextxy(320,380,"Alkaline Earth metals");

getch();

//---------------------------------------------------------------------------

//navigation box (nav\_box) starts here

int x1=18,y1=18,x2=52,y2=52;

rectangle(x1,y1,x2,y2); //reference nav\_box

rectangle(x1-1,y1-1,x2+1,y2+1);

char ch;

do

{ // accepting ch in loop

ch=getch();

switch(ch)

{

case down : if(y1<=320) //(last coordinate of y1)

{

setcolor(BLACK); //dissapearing before rect

rectangle(x1,y1,x2,y2);

rectangle(x1-1,y1-1,x2+1,y2+1);

y1+=60;

y2+=60; //inc coord

setcolor(WHITE);

rectangle(x1,y1,x2,y2); //drawing new rect

rectangle(x1-1,y1-1,x2+1,y2+1);

}

else

{

sound(100);

delay(50); //warning

nosound();

}

break;

case up : if(y1>=70)

{

setcolor(BLACK);

rectangle(x1,y1,x2,y2);

rectangle(x1-1,y1-1,x2+1,y2+1);

y1-=60;

y2-=60;

setcolor(WHITE);

rectangle(x1,y1,x2,y2);

rectangle(x1-1,y1-1,x2+1,y2+1);

}

else

{

sound(100);

delay(50);

nosound();

}

break;

case right : if(x1<=20)

{

setcolor(BLACK);

rectangle(x1,y1,x2,y2);

rectangle(x1-1,y1-1,x2+1,y2+1);

x1+=60;

x2+=60;

setcolor(WHITE);

rectangle(x1,y1,x2,y2);

rectangle(x1-1,y1-1,x2+1,y2+1);

}

else

{

sound(100);

delay(50);

nosound();

}

break;

case left : if(x1>=20)

{

setcolor(BLACK);

rectangle(x1,y1,x2,y2);

rectangle(x1-1,y1-1,x2+1,y2+1);

x1-=60;

x2-=60;

setcolor(WHITE);

rectangle(x1,y1,x2,y2);

rectangle(x1-1,y1-1,x2+1,y2+1);

}

else

{

sound(100);

delay(50);

nosound();

}

break;

case enter :

if(x1==18&&y1==18)

output(1);

else if(x1==18&&y1==78)

output(3);

else if(x1==18&&y1==138)

output(11);

else if(x1==18&&y1==198)

output(19);

else if(x1==18&&y1==258)

output(37);

else if(x1==18&&y1==318)

output(55);

else if(x1==18&&y1==378)

output(87);

else if(x1==78&&y1==78)

output(4);

else if(x1==78&&y1==138)

output(12);

else if(x1==78&&y1==198)

output(20);

else if(x1==78&&y1==253)

output(38);

else if(x1==78&&y1==318)

output(56);

else if(x1==78&&y1==378)

output(88);

else if(x1==78&&y1==78)

output(4);

else if(x1==78&&y1==138)

output(12);

else if(x1==78&&y1==198)

output(20);

else if(x1==78&&y1==258)

output(38);

else if(x1==78&&y1==318)

output(56);

else if(x1==78&&y1==378)

output(88);

break;

case esc : start();

break;

}

}

while(ch!=esc); //loop till esc is pressed

getch();

}

//---------------------------------------------------------------------------

void pblock()

{

cleardevice();

settextstyle(8,0,5);

outtextxy(50,100,"P-BLOCK");

int n=0,i=0,j,ele=5;

//1

for(n=0;n<6;n++)

{

setfillstyle(1,11);

bar(580,20+i,610,50+i);

delay(50);

i+=60;

}

//2

delay(100);

i=0;

for(n=0;n<5;n++)

{

if(n==4)

{

setfillstyle(1,YELLOW);

}

else

{

setfillstyle(1,12);

}

bar(520,80+i,550,110+i);

delay(50);

i+=60;

}

//3

delay(100);

i=0;

for(n=0;n<5;n++)

{

if(n<3)

{

setfillstyle(1,MAGENTA);

}

else if(n>=3&&n<=5)

{

setfillstyle(1,LIGHTBLUE);

}

bar(460,80+i,490,110+i);

delay(50);

i+=60;

}

//4

delay(100);

i=0;

for(n=0;n<5;n++)

{

if(n<2)

{

setfillstyle(1,MAGENTA);

}

else if(n<4)

{

setfillstyle(1,LIGHTBLUE);

}

else

{

setfillstyle(1,GREEN);

}

bar(400,80+i,430,110+i);

delay(50);

i+=60;

}

//5

delay(100);

i=0;

for(n=0;n<5;n++)

{

if(n==0)

{

setfillstyle(1,MAGENTA);

}

else if(n>0&&n<3)

{

setfillstyle(1,LIGHTBLUE);

}

else

{

setfillstyle(1,GREEN);

}

bar(340,80+i,370,110+i);

delay(50);

i+=60;

}

//6

delay(100);

i=0;

for(n=0;n<5;n++)

{

if(n==0)

{

setfillstyle(1,LIGHTBLUE);

}

else

{

setfillstyle(1,GREEN);

}

bar(280,80+i,310,110+i);

delay(50);

i+=60;

}

//last

delay(100);

i=0;

for(n=0;n<7;n++)

{

setfillstyle(1,7);

bar(280+i,380,310+i,410);

delay(50);

i+=60;

}

delay(100);

setcolor(WHITE);

settextstyle(2,0,4);

setfillstyle(1,CYAN);

bar(50,200,60,210);

outtextxy(70,200,"Noble Gases");

setfillstyle(1,LIGHTRED);

bar(50,250,60,260);

outtextxy(70,250,"Halogens");

setfillstyle(1,LIGHTBLUE);

bar(50,300,60,310);

outtextxy(70,300,"Metalloids");

setfillstyle(1,GREEN);

bar(50,350,60,360);

outtextxy(70,350,"Metals");

setfillstyle(1,7);

bar(50,400,60,410);

outtextxy(70,400,"Man-made elements");

delay(100);

char ch18[][5]={{"."},{"He"},{"Ne"},{"Ar"},{"Kr"},{"xe"},{"Rn"},{"Uuo"}};

char ch17[][5]={{"."},{"F"},{"Cl"},{"Br"},{"I"},{"At"},{"Uus"}};

char ch16[][5]={{"."},{"O"},{"S"},{"Se"},{"Te"},{"Po"},{"Uuh"}};

char ch15[][5]={{"."},{"N"},{"P"},{"As"},{"Sb"},{"Bi"},{"Uup"}};

char ch14[][5]={{"."},{"C"},{"Si"},{"Ge"},{"Sn"},{"Pb"},{"Uuq"}};

char ch13[][5]={{"."},{"B"},{"Al"},{"Ga"},{"In"},{"Tl"},{"Uut"}};

setcolor(BLACK);

settextstyle(0,0,1);

//1

for(i=0,n=0;i<=420,n<7;i+=60,n++)

{

outtextxy(585,30+i,&ch18[n][5]);

delay(50);

}

//2

for(i=0,n=0;i<=360,n<6;i+=60,n++)

{

outtextxy(525,90+i,&ch17[n][5]);

delay(50);

}

//3

for(i=0,n=0;i<=360,n<6;i+=60,n++)

{

outtextxy(465,90+i,&ch16[n][5]);

delay(50);

}

//4

for(i=0,n=0;i<=360,n<6;i+=60,n++)

{

outtextxy(405,90+i,&ch15[n][5]);

delay(50);

}

//5

for(i=0,n=0;i<=360,n<6;i+=60,n++)

{

outtextxy(345,90+i,&ch14[n][5]);

delay(50);

}

//6

for(i=0,n=0;i<=360,n<6;i+=60,n++)

{

outtextxy(285,90+i,&ch13[n][5]);

delay(50);

}

getch();

//navigation box ( nav\_box ) starts here

int x1=578,y1=18,x2=612,y2=52;

rectangle(x1,y1,x2,y2); //reference nav\_box

rectangle(x1-1,y1-1,x2+1,y2+1);

char ch;

do

{ // accepting ch in loop

ch=getch();

switch(ch)

{

case down : if(y1<=320)//(last coordinate of y1) - 60 ~ appr

{

setcolor(BLACK); //dissapearing before rect

rectangle(x1,y1,x2,y2);

rectangle(x1-1,y1-1,x2+1,y2+1);

y1+=60;

y2+=60; //inc coord

setcolor(WHITE);

rectangle(x1,y1,x2,y2); //drawing new rect

rectangle(x1-1,y1-1,x2+1,y2+1);

}

else

{

sound(100);

delay(50); //warning

nosound();

}

break;

case up : if(y1>=70)

{

setcolor(BLACK);

rectangle(x1,y1,x2,y2);

rectangle(x1-1,y1-1,x2+1,y2+1);

y1-=60;

y2-=60;

setcolor(WHITE);

rectangle(x1,y1,x2,y2);

rectangle(x1-1,y1-1,x2+1,y2+1);

}

else

{

sound(100);

delay(50);

nosound();

}

break;

case right : if(x1<=550)

{

setcolor(BLACK);

rectangle(x1,y1,x2,y2);

rectangle(x1-1,y1-1,x2+1,y2+1);

x1+=60;

x2+=60;

setcolor(WHITE);

rectangle(x1,y1,x2,y2);

rectangle(x1-1,y1-1,x2+1,y2+1);

}

else

{

sound(100);

delay(50);

nosound();

}

break;

case left : if(x1>=320)

{

setcolor(BLACK);

rectangle(x1,y1,x2,y2);

rectangle(x1-1,y1-1,x2+1,y2+1);

x1-=60;

x2-=60;

setcolor(WHITE);

rectangle(x1,y1,x2,y2);

rectangle(x1-1,y1-1,x2+1,y2+1);

}

else

{

sound(100);

delay(50);

nosound();

}

break;

case enter : if(x1==578&&y1==18)

{ output(2);

}

else

{

ele=5;

for(i=278,ele;i<=578,ele<=10;i+=60,ele++)

{

if(x1==i&&y1==78)

output(ele);

}

ele=13;

for(i=278,ele;i<=578,ele<=18;i+=60,ele++)

{

if(x1==i&&y1==138)

output(ele);

}

ele=31;

for(i=278,ele;i<=578,ele<=36;i+=60,ele++)

{

if(x1==i&&y1==198)

output(ele);

}

ele=49;

for(i=278,ele;i<=578,ele<=54;i+=60,ele++)

{

if(x1==i&&y1==258)

output(ele);

}

ele=81;

for(i=278,ele;i<=578,ele<=86;i+=60,ele++)

{

if(x1==i&&y1==318)

output(ele);

}

ele=113;

for(i=278,ele;i<=578,ele<=118;i+=60,ele++)

{

if(x1==i&&y1==378)

output(ele);

}

}

case esc : start();

break;

}

}

while(ch!=esc); //loop till esc is pressed

getch();

}

//------------------------------------------------------------------------

void dblock()

{

cleardevice();

settextstyle(8,0,5);

setcolor(10);

outtextxy(230,50,"D-BLOCK");

int n=0,i=0,ele=0;

int x1=40,y1=200,x2=70,y2=230;

int x11=50,y11=210;

setcolor(BLACK);

char ch3[][5]={{"."},{"Sc"},{"Y"},{"Lu"},{"Lr"}};

char ch4[][5]={{"."},{"Ti"},{"Zr"},{"Hf"},{"Rf"}};

char ch5[][5]={{"."},{"V"},{"Nb"},{"Ta"},{"Db"}};

char ch6[][5]={{"."},{"Cr"},{"Mo"},{"W"},{"Sg"}};

char ch7[][5]={{"."},{"Mn"},{"Tc"},{"Re"},{"Bh"}};

char ch8[][5]={{"."},{"Fe"},{"Ru"},{"Os"},{"Hs"}};

char ch9[][5]={{"."},{"Co"},{"Rh"},{"Ir"},{"Mt"}};

char ch10[][5]={{"."},{"Ni"},{"Pd"},{"Pt"},{"Ds"}};

char ch11[][5]={{"."},{"Cu"},{"Ag"},{"Au"},{"Rg"}};

char ch12[][5]={{"."},{"Zn"},{"Cd"},{"Hg"},{"Cn"}};

for(int j=0;j<10;j++)

{

for(n=0;n<4;n++)

{

if(j==0&&(n==2||n==3))

{

setfillstyle(1,CYAN);

}

else

{

setfillstyle(1,YELLOW);

}

bar(x1,y1+i,x2,y2+i);

i+=60;

delay(50);

}

x1+=60;

x2+=60;

y1=200;

y2=230;

i=0;

}

settextstyle(0,0,1);

for(i=0,n=0;i<=360,n<6;i+=60,n++)

{

outtextxy(x11,y11+i,&ch3[n][5]);

delay(50);

}

x11+=60;

for(i=0,n=0;i<=360,n<6;i+=60,n++)

{

outtextxy(x11,y11+i,&ch4[n][5]);

delay(50);

}

x11+=60;

for(i=0,n=0;i<=360,n<6;i+=60,n++)

{

outtextxy(x11,y11+i,&ch5[n][5]);

delay(50);

}

x11+=60;

for(i=0,n=0;i<=360,n<6;i+=60,n++)

{

outtextxy(x11,y11+i,&ch6[n][5]);

delay(50);

}

x11+=60;

for(i=0,n=0;i<=360,n<6;i+=60,n++)

{

outtextxy(x11,y11+i,&ch7[n][5]);

delay(50);

}

x11+=60;

for(i=0,n=0;i<=360,n<6;i+=60,n++)

{

outtextxy(x11,y11+i,&ch8[n][5]);

delay(50);

}

x11+=60;

for(i=0,n=0;i<=360,n<6;i+=60,n++)

{

outtextxy(x11,y11+i,&ch9[n][5]);

delay(50);

}

x11+=60;

for(i=0,n=0;i<=360,n<6;i+=60,n++)

{

outtextxy(x11,y11+i,&ch10[n][5]);

delay(50);

}

x11+=60;

for(i=0,n=0;i<=360,n<6;i+=60,n++)

{

outtextxy(x11,y11+i,&ch11[n][5]);

delay(50);

}

x11+=60;

for(i=0,n=0;i<=360,n<6;i+=60,n++)

{

outtextxy(x11,y11+i,&ch12[n][5]);

delay(50);

}

//nav\_box

x11=38;

y11=198;

int x22=72,y22=232;

rectangle(x11,y11,x22,y22);

rectangle(x11-1,y11-1,x22+1,y22+1);

char ch;

do

{ // accepting ch in loop

ch=getch();

switch(ch)

{

case down : if(y11<=320)//(last coordinate of y1) - 60 ~ appr

{

setcolor(BLACK); //dissapearing before rect

rectangle(x11,y11,x22,y22);

rectangle(x11-1,y11-1,x22+1,y22+1);

y11+=60;

y22+=60; //inc coord

setcolor(WHITE);

rectangle(x11,y11,x22,y22); //drawing new rect

rectangle(x11-1,y11-1,x22+1,y22+1);

}

else

{

sound(100);

delay(50); //warning

nosound();

}

break;

case up : if(y11>=258)

{

setcolor(BLACK);

rectangle(x11,y11,x22,y22);

rectangle(x11-1,y11-1,x22+1,y22+1);

y11-=60;

y22-=60;

setcolor(WHITE);

rectangle(x11,y11,x22,y22);

rectangle(x11-1,y11-1,x22+1,y22+1);

}

else

{

sound(100);

delay(50);

nosound();

}

break;

case right : if(x11<=560)

{

setcolor(BLACK);

rectangle(x11,y11,x22,y22);

rectangle(x11-1,y11-1,x22+1,y22+1);

x11+=60;

x22+=60;

setcolor(WHITE);

rectangle(x11,y11,x22,y22);

rectangle(x11-1,y11-1,x22+1,y22+1);

}

else

{

sound(100);

delay(50);

nosound();

}

break;

case left : if(x11>=80)

{

setcolor(BLACK);

rectangle(x11,y11,x22,y22);

rectangle(x11-1,y11-1,x22+1,y22+1);

x11-=60;

x22-=60;

setcolor(WHITE);

rectangle(x11,y11,x22,y22);

rectangle(x11-1,y11-1,x22+1,y22+1);

}

else

{

sound(100);

delay(50);

nosound();

}

break;

case enter :

ele=21;

for(i=38,ele;i<=578,ele<=30;i+=60,ele++)

{

if(x11==i&&y11==198)

output(ele);

}

ele=39;

for(i=38,ele;i<=578,ele<=48;i+=60,ele++)

{

if(x11==i&&y11==258)

output(ele);

}

ele=71;

for(i=38,ele;i<=578,ele<=80;i+=60,ele++)

{

if(x11==i&&y11==318)

output(ele);

}

ele=103;

for(i=38,ele;i<=578,ele<=112;i+=60,ele++)

{

if(x11==i&&y11==378)

output(ele);

}

case esc : start();

break;

}

}

while(ch!=esc); //loop till esc is pressed

getch();

}

//---------------------------------------------------------------------------

void fblock()

{

cleardevice();

settextstyle(8,0,5);

setcolor(YELLOW);

outtextxy(230,50,"F-BLOCK");

int n=0,i=0,ele;

int x1=45,y1=270,x2=75,y2=300;

int x11=15,y11=280;

setcolor(WHITE);

for(int j=0;j<14;j++)

{

for(n=0;n<2;n++)

{

if(j==0)

setfillstyle(1,YELLOW);

else

{ setfillstyle(1,10);}

bar(x1,y1+i,x2,y2+i);

i+=80;

delay(50);

}

x1+=40;

x2+=40;

y1=270;

y2=300;

i=0;

}

settextstyle(2,0,5);

outtextxy(10,240,"-- LANTHANOIDS SERIES --");

outtextxy(10,320,"-- ACTENOIDS SERIES --");

setcolor(BLACK);

char la[][15]={{"."},{"La"},{"Ce"},{"Pr"},{"Nd"},{"Pm"},{"Sm"},{"Eu"},{"Gd"},

{"Tb"},{"Dy"},{"Ho"},{"Er"},{"Tm"},{"Yb"}};

char ac[][15]={{"."},{"Ac"},{"Th"},{"Pa"},{"U"},{"Np"},{"Pu"},{"Am"},{"Cm"},

{"Bk"},{"Cf"},{"Es"},{"Fm"},{"Md"},{"No"}};

for(i=0;i<15;i++)

{

outtextxy(x11+=40,y11,&la[i][15]);

delay(50);

}

y11+=80;

x11=15;

for(i=0;i<15;i++)

{

outtextxy(x11+=40,y11,&ac[i][15]);

delay(50);

}

//nav box

x11=43;

y11=268;

int x22=77,y22=302;

setcolor(WHITE);

rectangle(x11,y11,x22,y22);

rectangle(x11-1,y11-1,x22+1,y22+1);

char ch;

do

{ // accepting ch in loop

ch=getch();

switch(ch)

{

case down : if(y11<=320)//(last coordinate of y1) - 60 ~ appr

{

setcolor(BLACK); //dissapearing before rect

rectangle(x11,y11,x22,y22);

rectangle(x11-1,y11-1,x22+1,y22+1);

y11+=80;

y22+=80; //inc coord

setcolor(WHITE);

rectangle(x11,y11,x22,y22); //drawing new rect

rectangle(x11-1,y11-1,x22+1,y22+1);

}

else

{

sound(100);

delay(50); //warning

nosound();

}

break;

case up : if(y11>=338)

{

setcolor(BLACK);

rectangle(x11,y11,x22,y22);

rectangle(x11-1,y11-1,x22+1,y22+1);

y11-=80;

y22-=80;

setcolor(WHITE);

rectangle(x11,y11,x22,y22);

rectangle(x11-1,y11-1,x22+1,y22+1);

}

else

{

sound(100);

delay(50);

nosound();

}

break;

case right : if(x11<=560)

{

setcolor(BLACK);

rectangle(x11,y11,x22,y22);

rectangle(x11-1,y11-1,x22+1,y22+1);

x11+=40;

x22+=40;

setcolor(WHITE);

rectangle(x11,y11,x22,y22);

rectangle(x11-1,y11-1,x22+1,y22+1);

}

else

{

sound(100);

delay(50);

nosound();

}

break;

case left : if(x11>=80)

{

setcolor(BLACK);

rectangle(x11,y11,x22,y22);

rectangle(x11-1,y11-1,x22+1,y22+1);

x11-=40;

x22-=40;

setcolor(WHITE);

rectangle(x11,y11,x22,y22);

rectangle(x11-1,y11-1,x22+1,y22+1);

}

else

{

sound(100);

delay(50);

nosound();

}

break;

case enter :

ele=57;

for(i=43,ele;i<=563,ele<=70;i+=40,ele++)

{

if(x11==i&&y11==268)

output(ele);

}

ele=89;

for(i=43,ele;i<=563,ele<=102;i+=40,ele++)

{

if(x11==i&&y11==348)

output(ele);

}

case esc : start();

break;

}

}

while(ch!=esc); //loop till esc is pressed

getch();

}

//---------------------------------------------------------------------------

void main()

{

clrscr();

int gd=DETECT; int gm;

initgraph(&gd,&gm,"C:\\TC\\BGI");

setfillstyle(0,GREEN);

settextstyle(8,0,5);

setcolor(GREEN);

outtextxy(100,100,"THE PERIODIC TABLE");

delay(1500);

cleardevice();

setcolor(WHITE);

border();

settextstyle(2,0,4);

outtextxy(50,100,"INSTRUCTIONS : ");

outtextxy(50,200,"1. You can navigate to S,P,D and F block by pressing S,P,D,F keys respectively.");

outtextxy(50,300,"2. Press ESC to exit in any case.");

getch();

cleardevice();

start();

}

//---------------------------------------------------------------------------

WORKING/DISPLAY















