**Name: Kartikey Vashist UID: 21BCA1559**

**Section: BCA 3 (B) Subject: Data structures and Algorithms**

**Aim:** write a program to print one , two and three dimension array

**Code:**

**(single D array)**

#include <iostream>

using namespace std;

int main() {

int numbers[5];

cout << "Enter 5 numbers: " << endl;

// store input from user to array

for (int i = 0; i < 5; ++i) {

cin >> numbers[i];

}

cout << "The numbers are: ";

// print array elements

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

cout << numbers[n] << " ";

}

return 0;

}

**(2D array)**

**#include <iostream>**

**using namespace std;**

**int main()**

**{**

**int r, c, a[10][10], i, j;**

**max = 0;**

**cout<<"Enter the elements for rows"<<endl;**

**cin>>r;**

**cout<<"Enter the elements for column"<<endl;**

**cin>>c;**

**cout<<"Enter elements for matrix: "<<endl;**

**for(i=0;i<r;i++){**

**for(j=0;j<c;j++){**

**cout << "Enter element a " << i + 1<< j + 1 << " : ";**

**cin >> a[i][j];**

**}**

**}**

**cout<<"Here's what you have entered: "<<endl;**

**for(i=0; i<r;i++){**

**for(j=0;j<c;j++){**

**cout<<"a " << i + 1 << j + 1 <<": ";**

**cout<<a[i][j]<<endl;**

**}**

**}**

**return 0;**

**}**

**(3D array)**

#include <iostream>

using namespace std;

int main()

{

int r, c, h, a[10][10][10], i, j, k;

max = 0;

cout<<"Enter the elements for rows"<<endl;

cin>>r;

cout<<"Enter the elements for column"<<endl;

cin>>c;

cout<<"Enter the elements for height "<<endl;

cin>>h;

cout<<"Enter the elements"<<endl;

for(i = 0; i < r; i++){

for(j = 0; j < c; j++){

for(k = 0; k < h; k++){

cin>>a[i][j][k];

}

}

}

cout<<"Here is what you have entered!"<<endl;

for(i = 0; i < r; i++){

for(j = 0; j < c; j++){

for(k = 0; k < h; k++){

cout<<a[i][j][k]<<endl;

}

}

}

return 0;

}