Lecture 12

Chapter 5.3,5.4
Topics

• Partially filled array
• Searching arrays
• Multidimensional arrays
  – Array declarations
  – Array as parameters
Partially filled array

• It is perfectly legal to only partially fill an array.
• But what would happen if only 5 variables were defined
  
  int maxLength = 10;
  int a[maxLength]= {1,2,4,6,5,0,0,0,0,0};
  void printSum( a, maxLength);
Partially filled array

• It would be better to do something like this
  
  int maxLength = 10;
  int numberUsed = 5;
  int a[maxLength] = {1,2,4,6,5,0,0,0,0,0};
  void printSum( a, maxLength, numberUsed);
Searching arrays

```c
int index = 0;
bool found = false;
while(!(found) && (index < numberUsed))
    if(target == a[index])
        found = true;
    else
        index++;

if(found)
    return index;
else
    return -1;
```
Multidimensional arrays

• Array declarations
  char text [30][100];

• How to assign it
  text[28][0] = ‘v’;
Arrays as parameters

char text [30][100];
void displayText( const char text[][100], int sizeDimension)
{
    for(int x = 0; x < sizeDimension; x++)
    {
        for(int y = 0; y < 100; y++)
            cout << text[x][y] << endl;
    }
}