Assignment - 08 (Problem 16.48)

Write program code to access individual fields of records under each of the following circumstances. For each case, state the assumptions you make concerning pointers, separator characters, and so on. Determine the type of information needed in the file header in order for your code to be general in each case.

a. Fixed-length records with unspanned blocking

b. Fixed-length records with spanned blocking

c. Variable-length records with variable-length fields and spanned blocking

d. Variable-length records with repeating groups and spanned blocking

e. Variable-length records with optional fields and spanned blocking

f. Variable-length records that allow all three cases in parts c, d, and e

a)   Consider the following program code for fixed length of records with unspanned blocking.

```
int x
X=5;
Y=2;
R=25;
for(B=0;B>=25;B++)
While(B)
 {
       X=starting_location+(R*x)+y;
 }
```

b)   Fixed-length records with spanned blocking

```
*starting_location=200;
int x
X=5;
Y=2;
R=25;
int i=0;
int B;
```

```
Int a=1
for(B=0;B>=25;B++)
{
      While($)
       {
             Current_location=current_location +25B;
             While(B)
              {
                    i=i+2*(a+1)
              }
       }
}
```

c)   Variable-length records with variable-length fields and spanned blocking

```
*starting_location=200;
int x
X=5;
Y=2;
R=25;
int a=1
Empty=ReadFirstByte(a);
if(!empty)
{
      Crnt_Rcrd_Length+=a.length();
}
if(crnt_Rcrd_length!=R)
{
      Empty=false;
}
if(crnt_Rcrd_Length>R)
{
      Records.push_back(*this);
}
```

d)   Variable-length records with repeating groups and spanned blocking

```
if(!empty)
{
      Crnt_Rcrd_Length+=a.length();
```

```
      }
```

e)   Variable-length records with optional fields and spanned blocking

```
if(crnt_Rcrd_Length!=R)
{
      Empty=false;
}
```

f)   Variable-length records that allow all three cases in parts c, d, and e

```
if(crnt_Rcrd_Length>R)
{
      Records.push_back(*this);
}
```