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4AL19IS061
F section

Program to implement matrix addition & subtraction

1. Start

2. Input r & c

3. Repeat through step 3
   for(i=0; i<r; i++)
   for(j=0; j<c; j++)
      Input a[i][j]

4. Repeat through step 4
   for(i=0; i<r; i++)
   for(j=0; j<c; j++)
      Input b[i][j]

5. Repeat through step 5
   for(i=0; i<r; i++)
   5.1 for(i=0; i<r; i++)
   5.1 a) m[i][j] = a[i][j]+b[i][j]
   5.1 b) print m[i][j]
   5.2 print "\n"

6. Repeat through step 6
   for(i=0; i<r; i++)
   6.1 for(j=0; i<c; j++)
   6.1 a) m[i][j] = a[i][j]-b[i][j]
   6.1 b) print m[i][j]
   6.2 Print "\n"

7. Stop

```
                    ( start )
                        |
                        v
                 / input r & c /
                        |
                        v
   False      / for i=0; i < r; i++ \ <------------+
      <-------\                      /             |
                        |                          |
                        v True                     |
   False      / for j=0; j < c; j++ \ <----+       |
      <-------\                      /      |       |
                        |                   |       |
                        v True              |       |
                 / input a[i][j] /----------+-------+
                        |
                        v
   False      / for i=0; i < r; i++ \ <------------+
      <-------\                      /             |
                        |                          |
                        v True                     |
   False      / for j=0; j < c; j++ \ <----+       |
      <-------\                      /      |       |
                        |                   |       |
                        v True              |       |
                 / input b[i][j] /----------+-------+
                        |
                        v
   False      / for i=0; i < r; i++ \ <------------+
      <-------\                      /             |
                        |                          |
                        v True                     |
   False      / for j=0; j < c; j++ \ <----+       |
      <-------\                      /      |       |
                        |                   |       |
                        v True              |       |
              +-------------------+         |       |
              | m[i][j] = a[i][j] |         |       |
              |    + b[i][j]      |         |       |
              +-------------------+         |       |
                        |                   |       |
                        v                   |       |
              / print m[i][j] /-------------+-------+
                        |
                        v
               / print "\n" /
                        |
                        v
   False      / for i=0; i < r; i++ \ <------------+
      <-------\                      /             |
                        |                          |
                        v True                     |
   False      / for j=0; j < c; j++ \ <----+       |
      <-------\                      /      |       |
                        |                   |       |
                        v True              |       |
              +-------------------+         |       |
              | m[i][j] = a[i][j] |         |       |
              |    - b[i][j]      |         |       |
              +-------------------+         |       |
                        |                   |       |
                        v                   |       |
              / print m[i][j] /-------------+-------+
                        |
                        v
               / print "\n" /
                        |
                        v
                    ( stop )
```