**Invert Filter**

Declare image\_grid [SIZE][SIZE]

Define invert

For i = 0 to i = (SIZE - 1)

For j = 0 to j = (SIZE - 1)

Image\_grid[ i ][ j ] = 255 – image\_grid[ i ][ j ]

**Rotation Filter**

Declare image\_grid , new\_image\_grid

Declare choice

Input choice

If choice == 90

For i = 0 to i = (SIZE – 1)

For j = 0 to j = (SIZE – 1)

new\_image\_grid[ j ][ i ] = image\_grid[SIZE- i – 1][ j ]

For i = 0 to i = (SIZE – 1)

For j = 0 to j = (SIZE – 1)

Image\_grid[ i ][ j ] = new\_image\_grid[ i ][ j ]

Else if choice == 180

For i = 0 to i = (SIZE / 2)

For j = 0 to j = (SIZE – 1)

Swap( image\_grid[i][j] , image\_grid[SIZE - 1 – i ][ j ]

Else if choice == 270

For i = 0 to i = (SIZE – 1)

For j = 0 to j = (SIZE – 1)

New\_image\_grid[ j ][ i ] = image\_grid[ i ][SIZE - 1 - j]

For i = 0 to i = (SIZE – 1)

For j = 0 to j = (SIZE – 1)

Image\_grid[ i ][ j ] = new\_image\_grid[ i ][ j ]