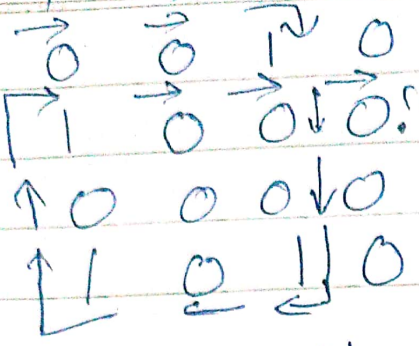
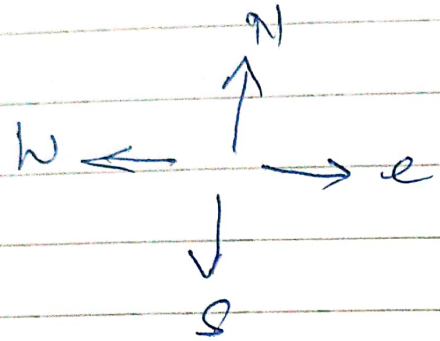
# Exit point of a matrix




Start from a point more in east direction take a 90° right turn when "1" is reached and continue till you exit the matrix




e ⇒ i, j+1 (same row, col increase)

S ⇒ i+1, j (row increase, col same)

W ⇒ i, j-1 (row same, col decrease)

N ⇒ i-1, j (row decrease, col same)

direction 90° change

e ⇒ east to south  dir = 0[e]

S ⇒ south to west  = 1[S]

W ⇒ west to North  = 2[W]

N ⇒ North to east  = 3[N]

= 0[e]

```
int dir=0; // 0-e, 1-S, 2-W, 3-n
int i=0;
int j=0;
while (true) {
    dir=(dir + arr[i,j]) % 4;

    if (dir==0) { //east
        j++;
    }else if (dir==1){//South
        i++;
    }else if (dir==2){ //West
        j--;
    }else if (dir ==3) { //north
        i--;
    }

    if (i<0) {
        i++;
        break;
    }else if (j<0) {
        j++; break;
    }
    else if (i== arr.GetLength(0)) {
        i--;
        break;
    } else if (j== arr.GetLength(1)){
        j--;
        break;
    }
}
```