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```
#include <stdio.h>
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```
#include <stdlib.h>
```

```
#define N 20
```

```
void bins(int[]);
```

```
int main(){
```

```
    int waitingTimes[N], i;
```

```
    for(i=0;i<N;i++)
```

```
        waitingTimes[i] = rand()%61;
```

```
    bins(waitingTimes);
```

```
    return 0;
```

```
}
```

```
void bins(int waitingTimes[N]){
```

```
    int histogram[N-8], i, j;
```

```
    for(j=0;j<N-8;j++) //making all zero because we increment them according to waiting times
```

```
        histogram[j] = 0;
```

```
for(i=0;i<N;i++){  
    if(waitingTimes[i] >= 0 && waitingTimes[i] <= 5)  
        histogram[0]++;  
    else if(waitingTimes[i] <= 10)  
        histogram[1]++;  
    else if(waitingTimes[i] <= 15)  
        histogram[2]++;  
    else if(waitingTimes[i] <= 20)  
        histogram[3]++;  
    else if(waitingTimes[i] <= 25)  
        histogram[4]++;  
    else if(waitingTimes[i] <= 30)  
        histogram[5]++;  
    else if(waitingTimes[i] <= 35)  
        histogram[6]++;  
    else if(waitingTimes[i] <= 40)  
        histogram[7]++;  
    else if(waitingTimes[i] <= 45)  
        histogram[8]++;  
    else if(waitingTimes[i] <= 50)  
        histogram[9]++;  
    else if(waitingTimes[i] <= 55)  
        histogram[10]++;  
    else  
        histogram[11]++;  
}  
  
printf("Patient's Waiting times:\n");
```

```
for(i=0;i<N;i++)  
    printf("%d ",waitingTimes[i]);  
  
printf("\n\nHistogram of patient's waiting times:\n");  
  
printf(" 0-5 minutes: %d\n",histogram[0]);  
printf(" 6-10 minutes: %d\n",histogram[1]);  
printf(" 11-15 minutes: %d\n",histogram[2]);  
printf(" 16-20 minutes: %d\n",histogram[3]);  
printf(" 21-25 minutes: %d\n",histogram[4]);  
printf(" 26-30 minutes: %d\n",histogram[5]);  
printf(" 31-35 minutes: %d\n",histogram[6]);  
printf(" 36-40 minutes: %d\n",histogram[7]);  
printf(" 41-45 minutes: %d\n",histogram[8]);  
printf(" 46-50 minutes: %d\n",histogram[9]);  
printf(" 51-55 minutes: %d\n",histogram[10]);  
printf(" 56-60 minutes: %d\n",histogram[11]);  
  
}
```