

2) write and execute a program to find 16-bit and 32-bit checksum Fletcher and Adler checksum methods.

```
2) #include <stdio.h>
int checksum (int data[], int a, int count)
{
    int c1 = 0, c2 = 0;
    int mod;
    if (a == 1) { mod = 255; }
    else { mod = 65535; c1 = 1; }
    for (int i = 0; i < count; i++)
    {
        c1 = (c1 + data[i]) % mod;
        c2 = (c2 + c1) % mod;
    }
}
```



```
return (2 * mod + c1;
```

```
}
```

```
int main() {
```

```
int a;
```

```
printf("Enter 1 to find Fletcher checksum/2 find  
Addler checksum:");
```

```
scanf("%d", &a);
```

```
int data[5], num;
```

```
printf("Enter data in the range of 0-255 to calculate  
Fletcher checksum, 0-65535 for Addler checksum:");
```

```
scanf("%d", &num);
```

```
int count = 0, d = num = num;
```

```
while(d = num > 0) {
```

```
    d = num % 10;
```

```
    count++;
```

```
}
```

```
d = num;
```

```
if(count > 5) {
```

```
    printf("Invalid input\n");
```

```
    exit(-1);
```

```
for(int i = count - 1; i >= 0; i--) {
```

```
    data[i] = d % 10;
```

```
    d = d / 10;
```

```
}
```

```
int val = checksum(data, a, count);
```

```
printf("Checksum = %d", val);
```

```
return 0;
```

```
}
```

give input no b/w
0-255

Output

Enter

1. Find Fletcher checksum
2. Find Adler checksum
3. Exit

1

Enter data in the range of 0-65535
for calculating checksum

49152

Checksum = 18126

Enter

1. Find Fletcher checksum
2. Find Adler checksum
3. Exit

2.

Enter data in range of 0-65535 for
calculating checksum

49152

Checksum : 4980682