Programming with C I

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Endfile-Controlled Loop Design

- Get the first ***data value*** and save ***input status***
- while ***input status*** does not indicate that end of file has been reached
- Process data value
- Get next data value and save ***input status***

Figure Batch Version of Sum of Exam Scores Program

```
/*
 * Compute the sum of the list of exam scores stored in the file scores. txt
 */
 #include <stdio.h>

int main(void)
{
        int sum = 0,            /* sum of scores input so far */
            score,              /* current score */
            input_status;       /* status value returned by scanf */

        printf("Scores\n");

        input_status = scanf("%d", &score);
        while (input_status != EOF) {
                printf("%5d\n", score);
                sum += score;
                input_status = scanf("%d", &score);
        }

        printf("\nSum of exam scores is %d\n", sum);

        return (0);
}

Scores
      55
      33
      77
sum of exam scores is 165
```

Nested Loops

- Loops may be nested just like other control structures
- Nested loops consist of an outer loop with one or more inner loops
- Each time the outer loop is repeated, the inner loops are reentered, their loop control expressions are eevaluated, and all required iterations are performed

THE END

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