1.

```c
#include <stdio.h>
void main() {
    int users;
    int max_users = 500000;
    printf("Enter the number of concurrent users: ");
    scanf("%d", &users);
    if (users >max_users)
    {
        printf("Error: Platform crash!Too many concurrent users.\n");
    }
    else
    {
        printf("Platform running successfully with %d concurrent users.\n", users);
    }
}
```

```c
2. #include <stdio.h>
#include <stdlib.h>
#include <time.h>

int main() {
    int failures = 0;
    srand(time(NULL));

    for (int i = 0; i < 100; i++) {
        if ((double)rand() / RAND_MAX < 0.02) {
            failures++;
        }
    }

    printf("Failed recommendations: %d\n", failures);
    return 0;
}
```

```c
5.  #include <stdio.h>

int main() {
    int totalLines = 1000000;
    double techDebt = 0.1;
    double reduction = 0.02;

    printf("Month\tTechnical Debt (Lines)\n");

    for (int month = 1; month <= 12; month++) {
        int debtLines = totalLines * techDebt;
        printf("%d\t%d\n", month, debtLines);

        techDebt *= (1 - reduction);
    }

    return 0;
}
```