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/*
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Reg:PA106/G/28778/25
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*/
```

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

```
int main() {
```

```
    int chain[3][5][10];
```

```
    int totalOccupied = 0;
```

```
    printf("=== Multiple Branches (3D Array) ===\n");
```

```
    printf("Enter 1 for occupied and 0 for vacant rooms.\n");
```

```
    for (int branch = 0; branch < 3; branch++) {
```

```
        printf("\n--- Branch %d ---\n", branch + 1);
```

```
        for (int floor = 0; floor < 5; floor++) {
```

```
            printf("\nFloor %d:\n", floor + 1);
```

```
            for (int room = 0; room < 10; room++) {
```

```
                printf("Enter status for room %d: ", room + 1);
```

```
                scanf("%d", &chain[branch][floor][room]);
```

```
                if (chain[branch][floor][room] == 1)
```

```
                    totalOccupied++;
```

```
            }
```

```
        }
```

```
}
```

```
printf("\nTotal occupied rooms across all branches: %d\n", totalOccupied);
```

```
return 0;
```

```
}
```