

CODE:

```
#include <iostream>
```

```
#include <stack>
```

```
using namespace std;
```

```
int main() {
```

```
    string a, b;
```

```
    cin >> a >> b;
```

```
    stack<int> s1, s2, res;
```

```
    for (char c : a) s1.push(c - '0');
```

```
    for (char c : b) s2.push(c - '0');
```

```
    int carry = 0;
```

```
    while (!s1.empty() || !s2.empty() || carry) {
```

```
        int x = 0, y = 0;
```

```
        if (!s1.empty()) { x = s1.top(); s1.pop(); }
```

```
        if (!s2.empty()) { y = s2.top(); s2.pop(); }
```

```
        int sum = x + y + carry;
```

```
        res.push(sum % 2);
```

```
        carry = sum / 2;
```

```
    }
```

```
    while (!res.empty()) {
```

```
        cout << res.top();
```

```
        res.pop();
```

```
    }
```

```
    cout << endl;
```

```
    return 0;  
}
```

OUTPUT:

1100

1001

10101

[Program finished]