

4. Pattern matching

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

```
#include <string.h>
```

```
void patternMatch(char text[], char pattern[]) {
```

```
    int n = strlen(text);
```

```
    int m = strlen(pattern);
```

```
    for (int i = 0; i <= n - m; i++) {
```

```
        int j;
```

```
        for (j = 0; j < m; j++) {
```

```
            if (text[i + j] != pattern[j]) {
```

```
                break;
```

```
            }
```

```
        }
```

```
        if (j == m) {
```

```
            printf("Pattern found at index %d\n", i);
```

```
        }
```

```
    }
```

```
}
```

```
int main() {
```

```
    char text[100], pattern[100];
```

```
    printf("Enter the text: ");
```

```
    scanf("%s", text);
```

```
    printf("Enter the pattern: ");
```

```
    scanf("%s", pattern);
```

```
    patternMatch(text, pattern);
```

```
return 0;  
}
```

Output

```
Enter the text: cdba  
Enter the pattern: 1234
```

```
=== Code Execution Successful ===
```