#include <stdio.h>

#include <ctype.h>

#include <string.h>

#define MAX\_IDENTIFIER\_LENGTH 50

int isOperator(char ch) {

char operators[] = "+-\*/%=><&|^~!?:";

for (int i = 0; i < strlen(operators); i++) {

if (ch == operators[i]) {

return 1;

}

}

return 0;

}

int main() {

char input[1000];

printf("Enter your code:\n");

fgets(input, sizeof(input), stdin);

int i = 0;

while (input[i] != '\0') {

if (isspace(input[i])) {

i++;

continue;

}

if (input[i] == '/' && input[i+1] == '/') {

break;

}

if (isalpha(input[i])) {

char identifier[MAX\_IDENTIFIER\_LENGTH + 1];

int j = 0;

while (isalnum(input[i]) || input[i] == '\_') {

identifier[j++] = input[i++];

}

identifier[j] = '\0';

printf("Identifier: %s\n", identifier);

}

else if (isdigit(input[i])) {

char constant[20];

int j = 0;

while (isdigit(input[i]) || input[i] == '.') {

constant[j++] = input[i++];

}

constant[j] = '\0';

printf("Constant: %s\n", constant);

}

else if (isOperator(input[i])) {

printf("Operator: %c\n", input[i++]);

}

else {

i++;

}

}

return 0;

}

Output:

A black screen with white text

Description automatically generated