14.8.24

Ex No:2 TOKENIZATION

**1.Program:**

#include <stdio.h>

#define KEYWORDS\_COUNT 10

int is\_keyword(char str[]) {

char keywords[KEYWORDS\_COUNT][10] = {"int", "float", "char", "double", "if", "else", "while", "for", "do", "elseif"};

int i, j;

for (i = 0; i < KEYWORDS\_COUNT; i++) {

j = 0;

while (str[j] != '\0' && keywords[i][j] != '\0' && str[j] == keywords[i][j]) {

j++;

}

if (str[j] == '\0' && keywords[i][j] == '\0') {

return 1;

}

}

return 0;

}

int main() {

char input[100];

while (1) {

printf("Enter input: ");

int i = 0;

char c;

while ((c = getchar()) != '\n') {

input[i++] = c;

}

input[i] = '\0';

if (is\_keyword(input)) {

printf("keyword\n");

}

else if ((input[0] >= '0' && input[0] <= '9') && input[1] == '\0') {

printf("constant\n");

}

else if ((input[0] >= '0' && input[0] <= '9') && input[1] >= '0' && input[1] <= '9' && input[2] == '\0') {

printf("constant\n");

}

else if ((input[0] >= '0' && input[0] <= '9') && ((input[1] >= 'a' && input[1] <= 'z') || (input[1] >= 'A' && input[1] <= 'Z'))) {

printf("invalid\n");

}

else if ((input[0] >= 'a' && input[0] <= 'z') || (input[0] >= 'A' && input[0] <= 'Z')) {

if (input[1] != '\0' && (input[1] == '+' || input[1] == '-' || input[1] == '\*' || input[1] == '/')) {

printf("invalid\n");

} else {

printf("identifier\n");

}

}

else {

printf("invalid\n");

}

printf("Do you want to continue? (y/n): ");

char option;

scanf(" %c", &option);

while (getchar() != '\n'); if (option == 'n') {

break;

}

}

return 0;

}

**Output:**

