**PRACTICAL – 12**

|  |  |
| --- | --- |
|  | **Problem statement**  ***Write a C Program to identify all the tokens from the source code*** |

**SOLUTION:**

|  |
| --- |
| **CODE:**  #include <stdio.h>  #include <ctype.h>  #include <string.h>  void identifyTokens(const char \**sourceCode*) {      int i = 0;      while (*sourceCode*[i] != '\0') {          if (isspace(*sourceCode*[i])) {              i++;              continue;          }          if (isalpha(*sourceCode*[i])) {              int start = i;              while (isalpha(*sourceCode*[i]) || isdigit(*sourceCode*[i]) || *sourceCode*[i] == '\_') {                  i++;              }              printf("Identifier: %.\*s\n", i - start, *sourceCode* + start);          } else if (isdigit(*sourceCode*[i])) {              int start = i;              while (isdigit(*sourceCode*[i])) {                  i++;              }              printf("Number: %.\*s\n", i - start, *sourceCode* + start);          } else {              printf("Symbol: %c\n", *sourceCode*[i]);              i++;          }      }  }  int main() {      char sourceCode[1024];      printf("Enter the source code: ");      fgets(sourceCode, sizeof(sourceCode), stdin);      identifyTokens(sourceCode);      return 0;  }  **OUTPUT:** |