1. Write a Lex program to check the given Mobile Number is valid or not.

Lex Program to Check whether the given Mobile Number is valid or not.

%{

#include <stdio.h>

#include <stdlib.h>

int valid\_count = 0; // Variable to hold the count of valid mobile numbers

%}

%%

// Match mobile numbers with optional country code and exactly 10 digits

(\+?\d{1,3}[- ]?)?\d{10} { valid\_count++; printf("%s is a valid mobile number.\n", yytext); }

// Match any invalid number format

[^0-9\n]+ { /\* Ignore non-digit characters \*/ }

// Ignore newlines

\n { /\* Ignore newlines \*/ }

%%

// Main function

int main() {

printf("Enter mobile numbers (one per line). Press Ctrl+D (EOF) to finish:\n");

yylex(); // Start lexical analysis

printf("Total valid mobile numbers: %d\n", valid\_count);

return 0;

}