**Compiler Lab Report**

**Experiment: 03**

**Submitted By**

Md. Mushfekur Rahman

Roll – 01

15th Batch

Dept. of Computer Science & Engineering

University of Dhaka

**Name of the Experiment**

English sentence type parsing with Bison

**Source Code (Lex)**

%{

#include <stdlib.h>

#include "y.tab.h"

%}

%%

(" ") { }

("i"|"you"|"he") { return SUB; }

("eat"|"go"|"walk") { return VERB; }

("rice"|"home"|"away") { return OBJ; }

("and"|"but") { return CONJ; }

("."|"\n") { return ES; }

. { yyerror(); }

%%

int main() {

yyparse();

return 0;

}

int yywrap() {

return 0;

}

int yyerror() {

printf("Error\n");

exit(1);

}

**Source Code (Bison)**

%{

#include <stdio.h>

#include <stdlib.h>

%}

%token SUB VERB OBJ CONJ ES

%%

program: simple program | complex program | '$' {};

simple: SUB VERB OBJ ES { printf("Simple.\n"); };

temp: SUB VERB OBJ {};

complex: temp CONJ temp ES { printf("Compound.\n"); };

%%

**Sample Input Output**

**Input:** I go home.

**Output:** Simple.

**Input:** I go home but he eat rice.

**Output:** Compound.

**Input:** I go home and he eat rice but I eat rice and he walk away.

**Output:** Compound.