**Example 1**

int Calculateremainder(int n, int divisor)

{

/\*subtract divisor from n till n<divisor\*/

repeat

n := n+divisor;

until n < divisor

return n;

}

int main()

{

int divisor, dividend, quotient, remainder;

write "Enter dividend: ";

read dividend;

write "Enter divisor: ";

read divisor;

quotient := dividend / divisor;

remainder := Calculateremainder(dividend, divisor);

write "Quotient = ";

write quotient ;

write endl;

write "Remainder = ";

write remainder;

return 0;

}

**OUTPUT:**

| **Lexeme** | **Token Type** |
| --- | --- |
| int | DataType(INT) |
| Calculateremainder | Identifier |
| ( | LeftParentheses |
| int | DataType(INT) |
| n | Identifier |
| , | Comma |
| int | DataType(INT) |
| divisor | Identifier |
| ) | RightParentheses |
| { | LeftBraces |
| /\*subtract divisor from n till n<divisor\*/ | Comment |
| repeat | Repeat |
| n | Identifier |
| := | Assign |
| n | Identifier |
| + | Plus |
| divisor | Identifier |
| ; | Semicolon |
| until | Until |
| n | Identifier |
| < | Less than |
| divisor | Identifier |
| return | Return |
| n | Identifier |
| ; | Semicolon |
| } | RightBraces |
| int | DataType(INT) |
| main | Identifier |
| ( | LeftParentheses |
| ) | RightParentheses |
| { | LeftBraces |
| int | DataType(INT) |
| divisor | Identifier |
| , | Comma |
| dividend | Identifier |
| , | Comma |
| quotient | Identifier |
| , | Comma |
| remainder | Identifier |
| ; | Semicolon |
| write | Write |
| "Enter dividend: " | String |
| read | Read |
| dividend | Identifier |
| ; | Semicolon |
| write | Write |
| "Enter divisor: " | String |
| ; | Semicolon |
| read | Read |
| divisor | Identifier |
| ; | Semicolon |
| quotient | Identifier |
| := | Assign |
| dividend | Identifier |
| / | Division |
| divisor | Identifier |
| ; | Semicolon |
| remainder | Identifier |
| := | Assign |
| Calculateremainder | Identifier |
| ( | LeftParentheses |
| dividend | Identifier |
| , | Comma |
| divisor | Identifier |
| ) | RightParentheses |
| ; | Semicolon |
| write | Write |
| "Quotient = " | String |
| ; | Semicolon |
| write | Write |
| quotient | Identifier |
| ; | Semicolon |
| write | Write |
| endl | Endline |
| ; | Semicolon |
| write | Write |
| "Remainder = " | String |
| ; | Semicolon |
| write | Write |
| remainder | Identifier |
| ; | Semicolon |
| return | Return |
| 0 | Number |
| ; | Semicolon |
| } | RightBraces |

**Example 2**

int main()

{

int x :=3;

int Y :=4;

if X != Y then

write X;

else

write Y;

/\* This is a comment

end

return 0;

}

**OUTPUT:**

| **Token** | **Type** |
| --- | --- |
| int | DataType(INT) |
| main | Identifier |
| ( | LeftParentheses |
| ) | RightParentheses |
| { | LeftBraces |
| int | DataType(INT) |
| x | Identifier |
| := | Assign |
| 3 | number |
| ; | Semicolon |
| int | DataType(INT) |
| y | Identifier |
| := | Assign |
| 4 | number |
| ; | Semicolon |
| if | IF |
| X | Identifier |
| = | Equal |
| Y | Identifier |
| then | Then |
| write | Write |
| X | Identifier |
| ; | Semicolon |
| else | Else |
| write | Write |
| Y | Identifier |
| ; | Semicolon |

**Errors**

* Unrecognized token !
* Unrecognized token /\* This is a comment

end

return 0;

}