Implementation of call graph for understanding relationship in a c code

SE – 305

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Group Members

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Overview

Our Task is to:

- Make an application that find all the functions and global variables.

- Show connectedness in them graphically.

Overview

What we did:

- -Parse a C code
- -Handle most type of mathematical expression
- -Make an abstract syntax tree
- -Generate an intermediate code from a C code.

Forming an intermediate code: input

```
for(int i=0; i<10; i=i*3)
{
        int a = 5+3*2;
        int b = 7;
        int c = a+2*b-7;
}
```

Forming an intermediate code: output

```
StartOfBlock1:
            t1=(i = 0)
StartOfWorkingBlock1:
            t1=(i < 10)
            t2=(t1 == false)
            if (t2) go to EndOfBlock1
            t1=(3 * 2)
            t2=(5 + t1)
            t3=(a = t2)
            t1=(b = 7)
            t1=(2 * b)
            t2=(a + t1)
            t3=(t2 - 7)
            t4=(c = t3)
            t1=(i * 3)
            t2=(i = t1)
            go to StartOfWorkingBlock1:
EndOfBlock1:
```

Contribution Of Members

❑ Code Parsing	Nazmul Haque
❑ Constructing Syntax Directed Tree	Feroz Ahmed
❑ Making Tree From An Expression	Md. Ruhul Amin
❑ Generating Intermediate Code	Nazmul Haque
❑ Planning and Scheduling	All the members

Modification after last presentation

- ✔ More specific about what we have done & want to do
- ✔ Giving more time and afford in raw coding
- ✔ More confident in group working
- ✔ Presentation contains full details about our project

What we studied so far

1.Polish Notation

2.Stack, Collection Framework of JAVA

3.Manage a Large Raw Code (about 1000 lines already)

4.Code Parsing

5.Basic Approaches of a Compiler

6.Making Abstract Syntax Tree

Thank You All