```
pointer:0x7ff250eba010
SgSourceFile
```

root node

```
SgNode* p_parent : 0x26ab180
bool p isModified: 0
bool p_containsTransformation: 0
Sq File Info* p startOfConstruct : 0x7ff25c100068
SgStringList p_originalCommandLineArgumentList : [./pdfGenerator, inputCode_wholeGraphAST.C]
int p_verbose: 0
bool p_output_warnings: 0
bool p_C_only: 0
bool p_UPC_only: 0
bool p_UPCxx_only: 0
int p_upc_threads: 0
bool p C89 only: 0
bool p_C89_gnu_only: 0
bool p_C99_only: 0
bool p_C99_gnu_only: 0
bool p_Cxx_only: 1
bool p_C11_only: 0
bool p_C11_gnu_only: 0
bool p_Cxx0x_only: 0
bool p_Cxx11_only: 0
bool p_Cxx11_gnu_only: 0
bool p_C14_only: 0
bool p_C14_gnu_only: 0
bool p Cxx14 only: 0
bool p_Cxx14_gnu_only: 0
bool p_Fortran_only: 0
bool p_F77_only: 0
bool p_F90_only: 0
bool p_F95_only: 0
bool p_F2003_only: 0
bool p_F2008_only: 0
bool p_CoArrayFortran_only: 0
bool p_Java_only: 0
bool p_X10_only: 0
bool p_PHP_only: 0
bool p_Python_only: 0
bool p_Cuda_only: 0
bool p_OpenCL_only: 0
bool p_requires_C_preprocessor: 0
bool p_binary_only: 0
SgFile::outputFormatOption enum p inputFormat: 2
SgFile::outputFormatOption_enum p_outputFormat : 2
SgFile::outputFormatOption_enum p_backendCompileFormat : 2
bool p_fortran_implicit_none: 0
bool p_openmp: 0
bool p openmp parse only: 1
bool p_openmp_ast_only: 0
bool p_openmp_lowering: 0
bool p_cray_pointer_support: 0
bool p_failsafe: 0
bool p output parser actions: 0
bool p_exit_after_parser : 0
bool p_skip_syntax_check: 0
bool p_relax_syntax_check : 0
bool p_skip_translation_from_edg_ast_to_rose_ast : 0
bool p_skip_transformation: 0
bool p_skip_unparse: 0
bool p_skipfinalCompileStep: 0
bool p_unparse_includes: 0
bool p_unparse_line_directives: 0
bool p_unparse_function_calls_using_operator_syntax: 0
```

pointer:0x7ff250ff0120 SgGlobal /home/demo/COP4934/Assignments/Assignment4/Ch4ASTWholeGraphGenerator/inputCode_wholeGraphAST.C 0:0 IsTransformation:0 IsOutputInCodeGeneration:0

Click here to go to the parent node

```
SgNode* p_parent : 0x7ff250eba010
bool p_isModified: 0
bool p_containsTransformation: 0
Sg_File_Info* p_startOfConstruct : 0x7ff25c1000c0
Sg_File_Info* p_endOfConstruct : 0x7ff25c100118
AttachedPreprocessingInfoType* p_attachedPreprocessingInfoPtr: 0
AstAttributeMechanism* p_attributeMechanism: 0
bool p_containsTransformationToSurroundingWhitespace: 0
SgLabelRefExp* p_numeric_label: 0
int p_source_sequence_value: -1
SgSymbolTable* p_symbol_table : 0x7ff250fa5140
SgTypeTable* p_type_table: 0x26e5c78
std::set<SgSymbol*> p_type_elaboration_list : []
std::set<SgSymbol*> p_hidden_type_list : []
std::set<SgSymbol*> p_hidden_declaration_list : []
SgDeclarationStatementPtrList p_declarations: <too long>: <too long>: [0x7ff250a21010, 0x7ff250a213e0, 0x7ff250a217b0, 0x7ff250a217b0]
```

```
Click here to go to the parent node
SqNode* p parent: 0x7ff250ff0120
bool p isModified: 0
bool p_containsTransformation: 0
Sg_File_Info* p_startOfConstruct : 0x7ff2501ac340
Sg_File_Info* p_endOfConstruct : 0x7ff2501ac398
AttachedPreprocessingInfoType* p_attachedPreprocessingInfoPtr: 0x27613b0
AstAttributeMechanism* p_attributeMechanism: 0
bool p containsTransformationToSurroundingWhitespace: 0
SgLabelRefExp* p_numeric_label: 0
int p_source_sequence_value : -1
unsigned int p decl attributes: 0
std::string p_linkage:
SqDeclarationModifier p_declarationModifier : <too long>: <too long>: SqDeclarationModifier(isUnknown() = false isDefault() = false isFrie
bool p_nameOnly: 1
bool p_forward: 0
bool p externBrace: 0
bool p_skipElaborateType: 0
SgDeclarationStatement* p definingDeclaration: 0
SgDeclarationStatement* p_firstNondefiningDeclaration: 0x7ff250066010
SgQualifiedNamePtrList p qualifiedNameList: []
std::string p binding label:
SgDeclarationStatement* p_baseTypeDefiningDeclaration: 0
SgInitializedNamePtrList p_variables : [0x7ff2502acc60]
bool p_variableDeclarationContainsBaseTypeDefiningDeclaration: 0
SgDeclarationStatement::template_specialization_enum p_specialization: 1
bool p requiresGlobalNameQualificationOnType: 0
std::string p_gnu_extension_section:
std::string p_gnu_extension_alias :
unsigned short p gnu extension initialization priority: 0
SgDeclarationStatement::gnu_extension_visability_attribute_enum p_gnu_extension_visability: 0
SgVariableDeclaration::gnu_extension_declaration_attributes_enum p_gnu_extension_declaration_attribute: 0
int p name qualification length: 0
bool p_type_elaboration_required: 0
bool p_global_qualification_required: 0
bool p_isAssociatedWithDeclarationList: 0
bool p_isFirstDeclarationOfDeclarationList: 1
bool p is thread local: 0
bool p_is_constexpr: 0
```

/home/demo/COP4934/Assignments/Assignment4/Ch4ASTWholeGraphGenerator/inputCode wholeGraphAST.C 1:1

Declaration mangled name: __global___variable_declaration__variable_type_i_variable_name_x

pointer:0x7ff250066010 SgVariableDeclaration

IsOutputInCodeGeneration:0

IsTransformation:0

pointer:0x7ff2502acc60
SgInitializedName
/home/demo/COP4934/Assignments/Assignment4/Ch4ASTWholeGraphGenerator/inputCode_wholeGraphAST.C 1:1
IsTransformation:0
IsOutputInCodeGeneration:0

Click here to go to the parent node

```
SqNode* p parent : 0x7ff250066010
bool p isModified: 0
bool p containsTransformation: 0
Sg File Info* p startOfConstruct: 0x7ff2501ac2e8
Sg_File_Info* p_endOfConstruct : 0x7ff2501ac290
AttachedPreprocessingInfoType* p_attachedPreprocessingInfoPtr : 0
AstAttributeMechanism* p_attributeMechanism: 0
bool p containsTransformationToSurroundingWhitespace: 0
SqName p name: x
std::string p_microsoft_uuid_string :
SgType* p_typeptr : 0x7ff25093d010
SgInitializer* p initptr: 0
SgInitializedName* p_prev_decl_item: 0
bool p is initializer: 1
SgDeclarationStatement* p_declptr : 0x7ff24ff48010
SgStorageModifier* p_storageModifier : 0x2cf57d0
SgScopeStatement* p_scope : 0x7ff250ff0120
SgInitializedName::preinitialization_enum p_preinitialization: 0
bool p isCoArray: 0
SqInitializedName::asm register name enum p register name code: 0
SgInitializedName::excess specifier enum p excess specifier: 0
std::string p register name string:
bool p_requiresGlobalNameQualificationOnType: 0
bool p_shapeDeferred: 0
bool p initializationDeferred: 0
unsigned long int p_gnu_attribute_initialization_priority: 0
std::string p_gnu_attribute_named_weak_reference :
std::string p_gnu_attribute_named_alias :
std::string p_gnu_attribute_cleanup_function :
std::string p_gnu_attribute_section_name :
int p_gnu_attribute_alignment : -1
SqDeclarationModifier::gnu declaration visability enum p gnu attribute visability: 2
bool p_protected_declaration: 0
int p_name_qualification_length_for_type: 0
bool p_type_elaboration_required_for_type: 0
bool p_global_qualification_required_for_type: 0
bool p_hasArrayTypeWithEmptyBracketSyntax: 0
bool p_using_C11_Alignas_keyword: 0
SgNode* p_constant_or_type_argument_for_Alignas_keyword: 0
bool p using auto keyword: 0
bool p_using_device_keyword: 0
bool p is braced initialized: 0
```