```
pointer:0x7fa46a935010
SgSourceFile
```

root node SgNode* p_parent: 0xe6b080 bool p isModified: 1 bool p containsTransformation: 0 \$CLASSNAME* p_freepointer : 0xfffffffffffff Sq File Info* p startOfConstruct : 0x7fa4763f4080 SgStringList p_originalCommandLineArgumentList : [pdfGenerator, -c, unit_2.ads] int p_verbose: 0 bool p_output_warnings: 0 bool p_C_only: 0 bool p_Cxx_only: 0 bool p_Fortran_only: 0 bool p_CoArrayFortran_only: 0 int p upc threads: 0 bool p_Java_only: 0 bool p_Jovial_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_Csharp_only: 0 bool p_Ada_only: 1 bool p Cobol 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_openacc: 0 bool p_openacc_parse_only: 0 bool p_openacc_ast_only: 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 skip parser: 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 bool p_unparse_function_calls_using_operator_names: 0 bool p unparse instruction addresses: 1 bool p_unparse_raw_memory_contents: 1 bool p unparse binary file format: 1 SgFile::languageOption_enum p_outputLanguage : 12 SgFile::languageOption_enum p_inputLanguage : 12 std::string p_sourceFileNameWithPath:/home/liao6/workspace/ada-to-cpp-FY21/rose-ast/ada/unit_2.ads std::string p_sourceFileNameWithoutPath : unit_2.ads std::string p_unparse_output_filename: std::string p_objectFileNameWithPath: std::string p_objectFileNameWithoutPath: bool p useBackendOnly: 0

pointer:0x7fa47636b128 SgGlobal /home/liao6/workspace/ada-to-cpp-FY21/rose-ast/ada/unit_2.ads 0:0 IsTransformation:0 IsOutputInCodeGeneration:0

Click here to go to the parent node

```
SgNode* p_parent: 0x7fa46a935010
bool p_isModified: 1
bool p_containsTransformation: 0
Sg_File_Info* p_startOfConstruct : 0x7fa4763f40f0
Sg_File_Info* p_endOfConstruct : 0x7fa4763f4160
AttachedPreprocessingInfoType* p_attachedPreprocessingInfoPtr: 0
AstAttributeMechanism* p_attributeMechanism: 0
bool p_containsTransformationToSurroundingWhitespace: 0
SgLabelRefExp* p_numeric_label: 0
int p_source_sequence_value: 0
SgSymbolTable* p_symbol_table: 0x7fa476315170
SgTypeTable* p_type_table: 0xea5ae8
std::set<SgSymbol*> p_type_elaboration_list : []
std::set<SgSymbol*> p_hidden_type_list : []
std::set<SgSymbol*> p_hidden_declaration_list : []
SgPragma* p_pragma: 0
SgDeclarationStatementPtrList p_declarations: [0x7fa469e5f010, 0x7fa469cc4010]
```

```
Click here to go to the parent node
SgNode* p_parent : 0x7fa47636b128
bool p_isModified: 1
bool p_containsTransformation: 0
Sg_File_Info* p_startOfConstruct : 0x7fa4763f4a20
Sg_File_Info* p_endOfConstruct : 0x7fa4763f4a90
AttachedPreprocessingInfoType* p_attachedPreprocessingInfoPtr: 0
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:
SgDeclarationModifier p_declarationModifier: <too long>: <too long>: SgDeclarationModifier(isUnknown() = false isDefault() = true isFrien
bool p_nameOnly: 0
bool p_forward: 0
bool p_externBrace: 0
bool p_skipElaborateType: 0
```

pointer:0x7fa469e5f010 SgImportStatement Unit_2.ads 1:6 IsTransformation:0

IsOutputInCodeGeneration:1

Declaration mangled name: __import__

SgDeclarationStatement* p_definingDeclaration: 0

SgExpressionPtrList p_import_list : [0x7fa469fde010]

SgQualifiedNamePtrList p_qualifiedNameList : []

SgDeclarationScope* p_declarationScope : 0

std::string p_binding_label:

SgDeclarationStatement* p_firstNondefiningDeclaration : 0x7fa469e5f010

pointer:0x7fa469cc4010 SgAdaPackageSpecDecl Unit_2.ads 3:1 IsTransformation:0 IsOutputInCodeGeneration:1

SgName p_name: Unit_2

SgAdaPackageSpec* p_definition: 0x7fa46a8a8130 SgScopeStatement* p_scope : 0x7fa47636b128

Declaration mangled name: ada\$pkg\$Unit_2

Click here to go to the parent node

SgNode* p_parent : 0x7fa47636b128 bool p_isModified: 1 bool p_containsTransformation: 0 Sg_File_Info* p_startOfConstruct : 0x7fa4763f4f60 Sg_File_Info* p_endOfConstruct : 0x7fa4763f4fd0 AttachedPreprocessingInfoType* p_attachedPreprocessingInfoPtr: 0 AstAttributeMechanism* p_attributeMechanism: 0 bool p containsTransformationToSurroundingWhitespace: 0 SgLabelRefExp* p_numeric_label: 0 int p_source_sequence_value: 2 unsigned int p_decl_attributes: 0 std::string p_linkage: SgDeclarationModifier p_declarationModifier: <too long>: <too long>: SgDeclarationModifier(isUnknown() = false isDefault() = true isFrien bool p_nameOnly: 0 bool p_forward: 0 bool p_externBrace: 0 bool p_skipElaborateType: 0 SgDeclarationStatement* p_definingDeclaration: 0 SgDeclarationStatement* p_firstNondefiningDeclaration: 0x7fa469cc4010 SgQualifiedNamePtrList p_qualifiedNameList : [] std::string p_binding_label: SgDeclarationScope* p_declarationScope : 0

pointer:0x7fa46a8a8130 SgAdaPackageSpec transformation 0:0 IsTransformation:1 IsOutputInCodeGeneration:1

Click here to go to the parent node

```
SgNode* p_parent : 0x7fa469cc4010
bool p isModified: 1
bool p_containsTransformation: 0
Sg_File_Info* p_startOfConstruct : 0x7fa4763f4cc0
Sg_File_Info* p_endOfConstruct : 0x7fa4763f4d30
AttachedPreprocessingInfoType* p_attachedPreprocessingInfoPtr: 0
AstAttributeMechanism* p_attributeMechanism: 0
bool p_containsTransformationToSurroundingWhitespace: 0
SgLabelRefExp* p_numeric_label: 0
int p_source_sequence_value: 3
SgSymbolTable* p_symbol_table: 0x7fa4763154e0
SgTypeTable* p_type_table: 0xea5b60
std::set<SgSymbol*> p_type_elaboration_list : []
std::set<SgSymbol*> p_hidden_type_list : []
std::set<SgSymbol*> p_hidden_declaration_list : []
SgPragma* p_pragma: 0
SgAdaPackageBody* p_body: 0
SgDeclarationStatementPtrList p_declarations : [0x7fa46a4ca390]
```

```
pointer:0x7fa46a4ca390
SgTypedefDeclaration
transformation 0:0
IsTransformation:1
IsOutputInCodeGeneration:1
```

Click here to go to the parent node

int p_name_qualification_length_for_base_type : 0
bool p_type_elaboration_required_for_base_type : 0
bool p_global_qualification_required_for_base_type : 0

bool p_isAutonomousDeclaration : 1
bool p_isAssociatedWithDeclarationList : 0
bool p_isFirstDeclarationOfDeclarationList : 1

int p_name_qualification_length : 0
bool p_type_elaboration_required : 0
bool p_global_qualification_required : 0

Declaration mangled name: LOR

```
SgNode* p_parent: 0x7fa46a8a8130
bool p isModified: 1
bool p_containsTransformation: 0
Sg_File_Info* p_startOfConstruct : 0x7fa4763f5900
Sg_File_Info* p_endOfConstruct : 0x7fa4763f5970
AttachedPreprocessingInfoType* p_attachedPreprocessingInfoPtr: 0
AstAttributeMechanism* p_attributeMechanism: 0
bool p containsTransformationToSurroundingWhitespace: 0
SgLabelRefExp* p_numeric_label: 0
int p_source_sequence_value: 4
unsigned int p decl attributes: 0
std::string p_linkage:
SqDeclarationModifier p_declarationModifier : <too long>: <too long>: SqDeclarationModifier(isUnknown() = false isDefault() = true isFrien
bool p_nameOnly: 0
bool p_forward: 0
bool p_externBrace: 0
bool p_skipElaborateType: 0
SgDeclarationStatement* p_definingDeclaration: 0
SgDeclarationStatement* p_firstNondefiningDeclaration: 0x7fa46a4ca390
SgQualifiedNamePtrList p_qualifiedNameList : []
std::string p binding label:
SgDeclarationScope* p_declarationScope : 0
SgName p_name: Range_Type
SgType* p_base_type : 0x7fa469b5f010
SgTypedefType* p_type: 0x7fa46a487120
SqDeclarationStatement* p declaration: 0
SgSymbol* p_parent_scope : 0xfac9b0
bool p_typedefBaseTypeContainsDefiningDeclaration: 0
SgScopeStatement* p_scope : 0x7fa46a8a8130
bool p_requiresGlobalNameQualificationOnType: 0
```