```
check-arg:
 %isNonNull = icmp ne %struct.DataNode* %0, null
 br i1 %isNonNull, label %conditional, label %24
                    T                          F
```

```
conditional:
 %2 = getelementptr inbounds %struct.DataNode, %struct.DataNode* %0, i32 0,
... i32 0, i32 0
 %3 = load %struct.DataNode*, %struct.DataNode** %2, align 8
 call void @llvm.prefetch.p0s_struct.DataNodes(%struct.DataNode* %3, i32 0,
... i32 3, i32 1)
 %4 = getelementptr inbounds %struct.DataNode, %struct.DataNode* %0, i32 0,
... i32 0, i32 1
 %5 = load %struct.DataNode*, %struct.DataNode** %4, align 8
 call void @llvm.prefetch.p0s_struct.DataNodes(%struct.DataNode* %5, i32 0,
... i32 3, i32 1)
 %6 = getelementptr inbounds %struct.DataNode, %struct.DataNode* %0, i32 0,
... i32 0, i32 2
 %7 = load %struct.DataNode*, %struct.DataNode** %6, align 8
 call void @llvm.prefetch.p0s_struct.DataNodes(%struct.DataNode* %7, i32 0,
... i32 3, i32 1)
 %8 = getelementptr inbounds %struct.DataNode, %struct.DataNode* %0, i32 0,
... i32 0, i32 3
 %9 = load %struct.DataNode*, %struct.DataNode** %8, align 8
 call void @llvm.prefetch.p0s_struct.DataNodes(%struct.DataNode* %9, i32 0,
... i32 3, i32 1)
 %10 = getelementptr inbounds %struct.DataNode, %struct.DataNode* %0, i32 0,
... i32 0, i32 4
 %11 = load %struct.DataNode*, %struct.DataNode** %10, align 8
 call void @llvm.prefetch.p0s_struct.DataNodes(%struct.DataNode* %11, i32 0,
... i32 3, i32 1)
 %12 = getelementptr inbounds %struct.DataNode, %struct.DataNode* %0, i32 0,
... i32 0, i32 5
 %13 = load %struct.DataNode*, %struct.DataNode** %12, align 8
 call void @llvm.prefetch.p0s_struct.DataNodes(%struct.DataNode* %13, i32 0,
... i32 3, i32 1)
 %14 = getelementptr inbounds %struct.DataNode, %struct.DataNode* %0, i32 0,
... i32 0, i32 6
 %15 = load %struct.DataNode*, %struct.DataNode** %14, align 8
 call void @llvm.prefetch.p0s_struct.DataNodes(%struct.DataNode* %15, i32 0,
... i32 3, i32 1)
 %16 = getelementptr inbounds %struct.DataNode, %struct.DataNode* %0, i32 0,
... i32 0, i32 7
 %17 = load %struct.DataNode*, %struct.DataNode** %16, align 8
 call void @llvm.prefetch.p0s_struct.DataNodes(%struct.DataNode* %17, i32 0,
... i32 3, i32 1)
 %18 = getelementptr inbounds %struct.DataNode, %struct.DataNode* %0, i32 0,
... i32 0, i32 8
 %19 = load %struct.DataNode*, %struct.DataNode** %18, align 8
 call void @llvm.prefetch.p0s_struct.DataNodes(%struct.DataNode* %19, i32 0,
... i32 3, i32 1)
 %20 = getelementptr inbounds %struct.DataNode, %struct.DataNode* %0, i32 0,
... i32 0, i32 9
 %21 = load %struct.DataNode*, %struct.DataNode** %20, align 8
 call void @llvm.prefetch.p0s_struct.DataNodes(%struct.DataNode* %21, i32 0,
... i32 3, i32 1)
 %22 = getelementptr inbounds %struct.DataNode, %struct.DataNode* %0, i32 0,
... i32 1
 %23 = load %struct.Data*, %struct.Data** %22, align 8
 call void @llvm.prefetch.p0s_struct.Datas(%struct.Data* %23, i32 0, i32 3,
... i32 1)
 br label %24
```

```
%24:
24:
 %25 = alloca %struct.DataNode*, align 8
 %26 = alloca i32*, align 8
 %27 = alloca i64, align 8
 store %struct.DataNode* %0, %struct.DataNode** %25, align 8
 store i32* %1, i32** %26, align 8
 %28 = load %struct.DataNode*, %struct.DataNode** %25, align 8
 %29 = icmp ne %struct.DataNode* %28, null
 br i1 %29, label %31, label %30
             T                       F
```

```
%31:
31:
 call void @srand(i32 noundef 100) #5
 %32 = load %struct.DataNode*, %struct.DataNode** %25, align 8
 %33 = getelementptr inbounds %struct.DataNode, %struct.DataNode* %32, i32 0,
... i32 1
 %34 = load %struct.Data*, %struct.Data** %33, align 8
 %35 = getelementptr inbounds %struct.Data, %struct.Data* %34, i32 0, i32 2
 %36 = load i32, i32* %35, align 4
 %37 = call i32 (i8*, ...) @printf(i8* noundef getelementptr inbounds ([3 x
... i8], [3 x i8]* @.str, i64 0, i64 0), i32 noundef %36)
 store i64 0, i64* %27, align 8
 br label %38
```

```
%30:
30:
 br label %79
```

```
%38:
38:
 %39 = load i64, i64* %27, align 8
 %40 = load %struct.DataNode*, %struct.DataNode** %25, align 8
 %41 = getelementptr inbounds %struct.DataNode, %struct.DataNode* %40, i32 0,
... i32 3
 %42 = load i32, i32* %41, align 4
 %43 = zext i32 %42 to i64
 %44 = icmp ult i64 %39, %43
 br i1 %44, label %45, label %79
             T                       F
```

```
%45:
45:
 %46 = load i32*, i32** %26, align 8
 %47 = load %struct.DataNode*, %struct.DataNode** %25, align 8
 %48 = getelementptr inbounds %struct.DataNode, %struct.DataNode* %47, i32 0,
... i32 0
 %49 = load i64, i64* %27, align 8
 %50 = getelementptr inbounds [10 x %struct.DataNode*], [10 x
... %struct.DataNode*]* %48, i64 0, i64 %49
 %51 = load %struct.DataNode*, %struct.DataNode** %50, align 8
 %52 = getelementptr inbounds %struct.DataNode, %struct.DataNode* %51, i32 0,
... i32 2
 %53 = load i32, i32* %52, align 8
 %54 = zext i32 %53 to i64
 %55 = getelementptr inbounds i32, i32* %46, i64 %54
 %56 = load i32, i32* %55, align 4
 %57 = icmp ne i32 %56, 0
 br i1 %57, label %75, label %58
             T                       F
```

```
%79:
79:
 ret void
```

```
%58:
58:
 %59 = load i32*, i32** %26, align 8
 %60 = load %struct.DataNode*, %struct.DataNode** %25, align 8
 %61 = getelementptr inbounds %struct.DataNode, %struct.DataNode* %60, i32 0,
... i32 0
 %62 = load i64, i64* %27, align 8
 %63 = getelementptr inbounds [10 x %struct.DataNode*], [10 x
... %struct.DataNode*]* %61, i64 0, i64 %62
 %64 = load %struct.DataNode*, %struct.DataNode** %63, align 8
 %65 = getelementptr inbounds %struct.DataNode, %struct.DataNode* %64, i32 0,
... i32 2
 %66 = load i32, i32* %65, align 8
 %67 = zext i32 %66 to i64
 %68 = getelementptr inbounds i32, i32* %59, i64 %67
 store i32 1, i32* %68, align 4
 %69 = load %struct.DataNode*, %struct.DataNode** %25, align 8
 %70 = getelementptr inbounds %struct.DataNode, %struct.DataNode* %69, i32 0,
... i32 0
 %71 = load i64, i64* %27, align 8
 %72 = getelementptr inbounds [10 x %struct.DataNode*], [10 x
... %struct.DataNode*]* %70, i64 0, i64 %71
 %73 = load %struct.DataNode*, %struct.DataNode** %72, align 8
 %74 = load i32*, i32** %26, align 8
 call void @traverseDataLayout(%struct.DataNode* noundef %73, i32* noundef
... %74)
 br label %75
```

```
%75:
75:
 br label %76
```

```
%76:
76:
 %77 = load i64, i64* %27, align 8
 %78 = add i64 %77, 1
 store i64 %78, i64* %27, align 8
 br label %38, !llvm.loop !6
```

CFG for 'traverseDataLayout' function