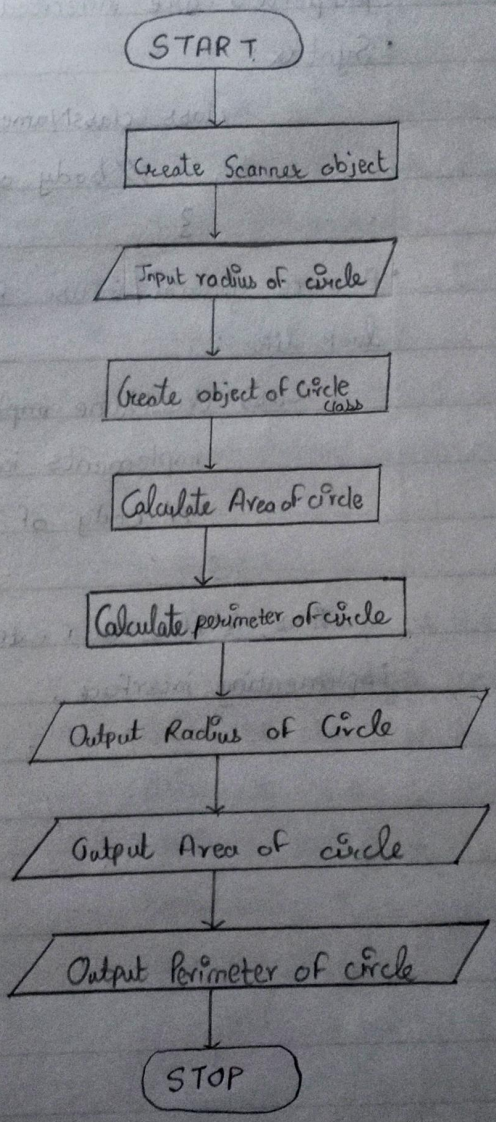
Practical No. 10

Aim : Create, debug and run java programs based on package

Flowchart :



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Aim: Create debug and run java programs based on Package.

Theory:

What is a package?

→ "Packages are Java language's way of grouping a variety of classes and/or interfaces together. Java packages act as "containers" for classes."

Java packages are further classified into two types:

i) Java API package
ii) User defined packages

- Creating Packages:

1. Declare package at the beginning of file using the form:
   package packageName;
2. Define the class that is to be put in the package and declare it public.
3. Create a subdirectory under the directory where the main source files are stored.
4. Store the listings as the classname.java file in the subdirectory created.
5. Compile the file. This creates .class file in the subdirectory.

- Accessing package:

1. The import statement is used when there are many references to a particular package or the package name is too long and unwieldy.

2. Syntax:

import package1 [.package2] [.package3] . className ;

OR

import package1 [.package2] [.package3] . * ;

- Using package :
  - Syntax :

import package1 . className ;

[This will import the specific classes from the package].

OR

import package1 . * ;

[This will import the all the classes from accessible classes from the package].

- What is Static import ?

→ • The feature of static import eliminates the need of qualifying a static member with the class name.

- Syntax :

import static package-name . Subpackage-name . class-name . Static-member ;

OR

import static package-name . Subpackage-name . class-name . * ;

Conclusion :

Hence, I learnt about the concepts of package and static import. I also coded, developed, debugged and executed programs based on the concept of packages.