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FACULTY OF ENGINEERING & TECHNOLOGY

BCS-503: Object Oriented Techniques

Lecture-24

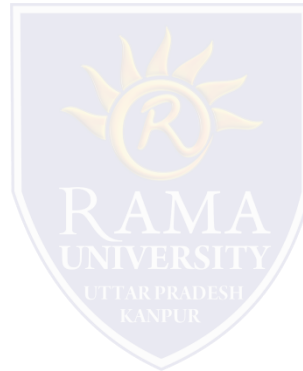
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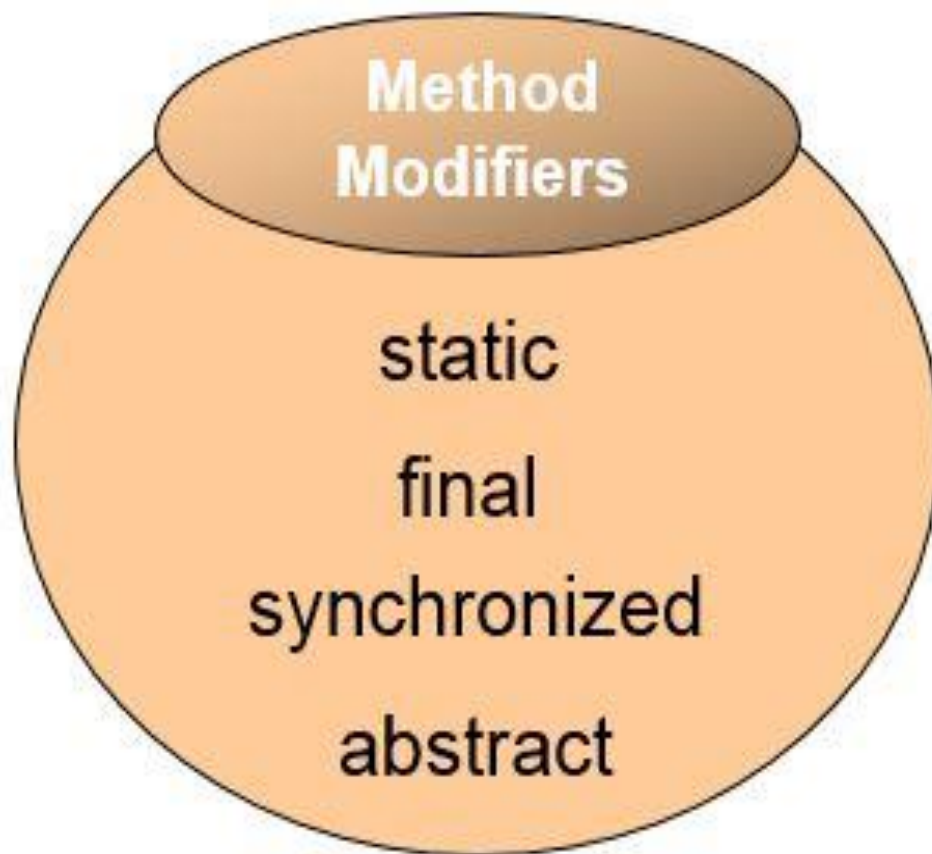
OBJECTIVES

In this PPT, you will learn to:

❖ Identify the method modifiers

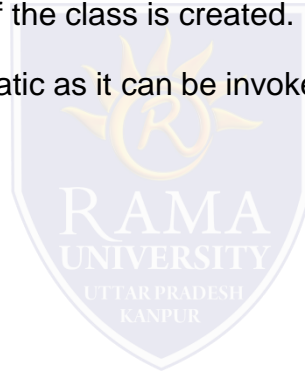


METHOD MODIFIERS

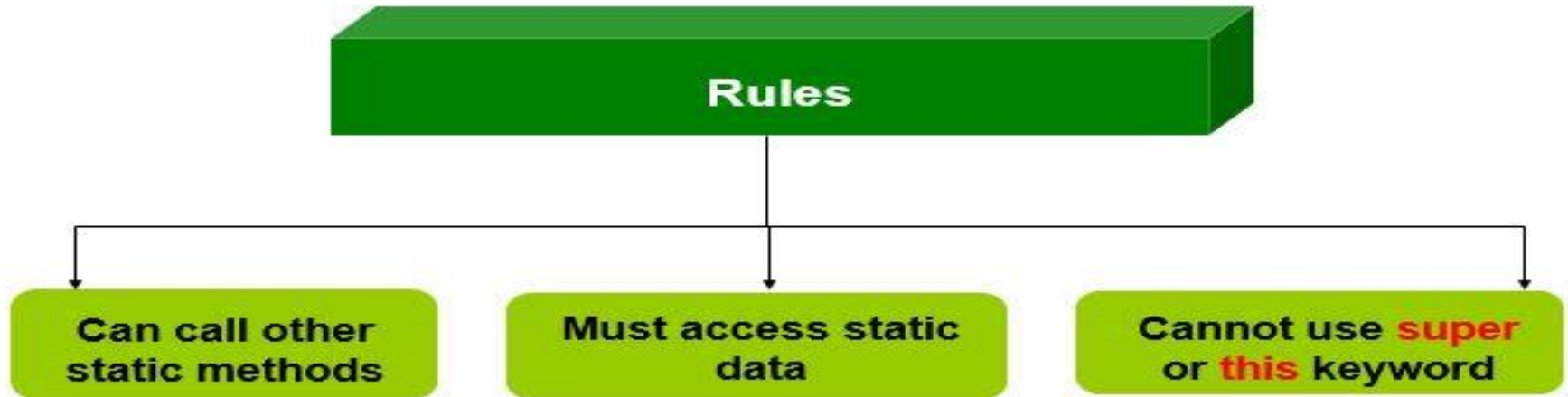


static MODIFIER

- Programmer might need to access a class member independent of any object of the class.
- The keyword `static` is used to create such a member.
- Such a member is accessed before any object of the class is created.
 - For example, `main()` method is declared `static` as it can be invoked by the Java runtime system without creating an instance of the class.



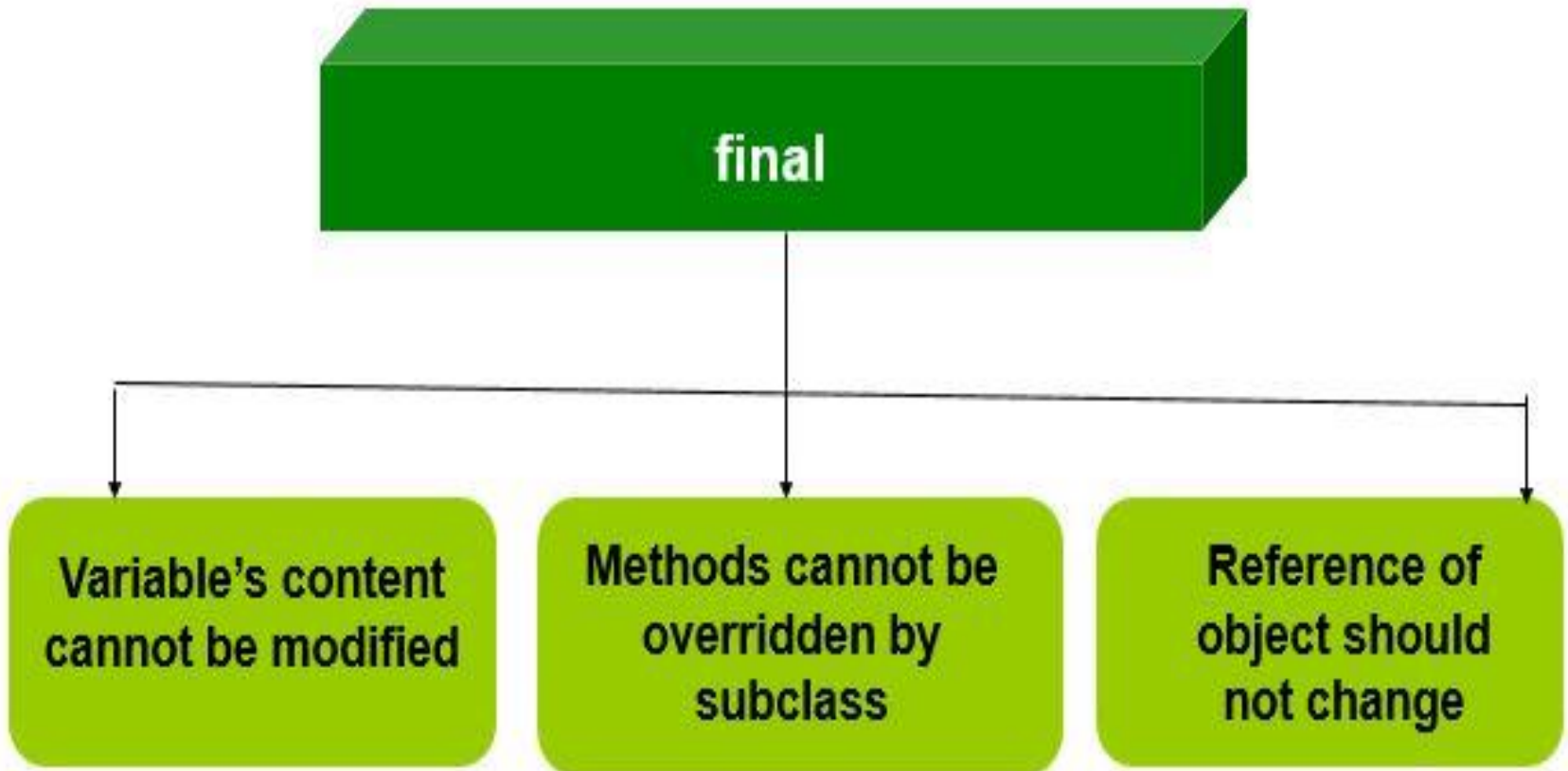
static MODIFIER (Contd.)



Syntax for invoking a static method is:

```
Classname.methodname();
```

final MODIFIER

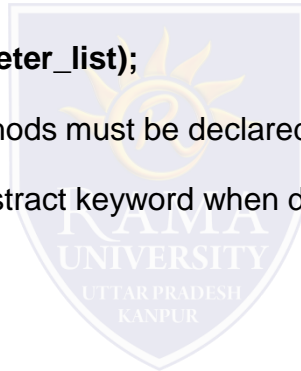


abstract MODIFIERS

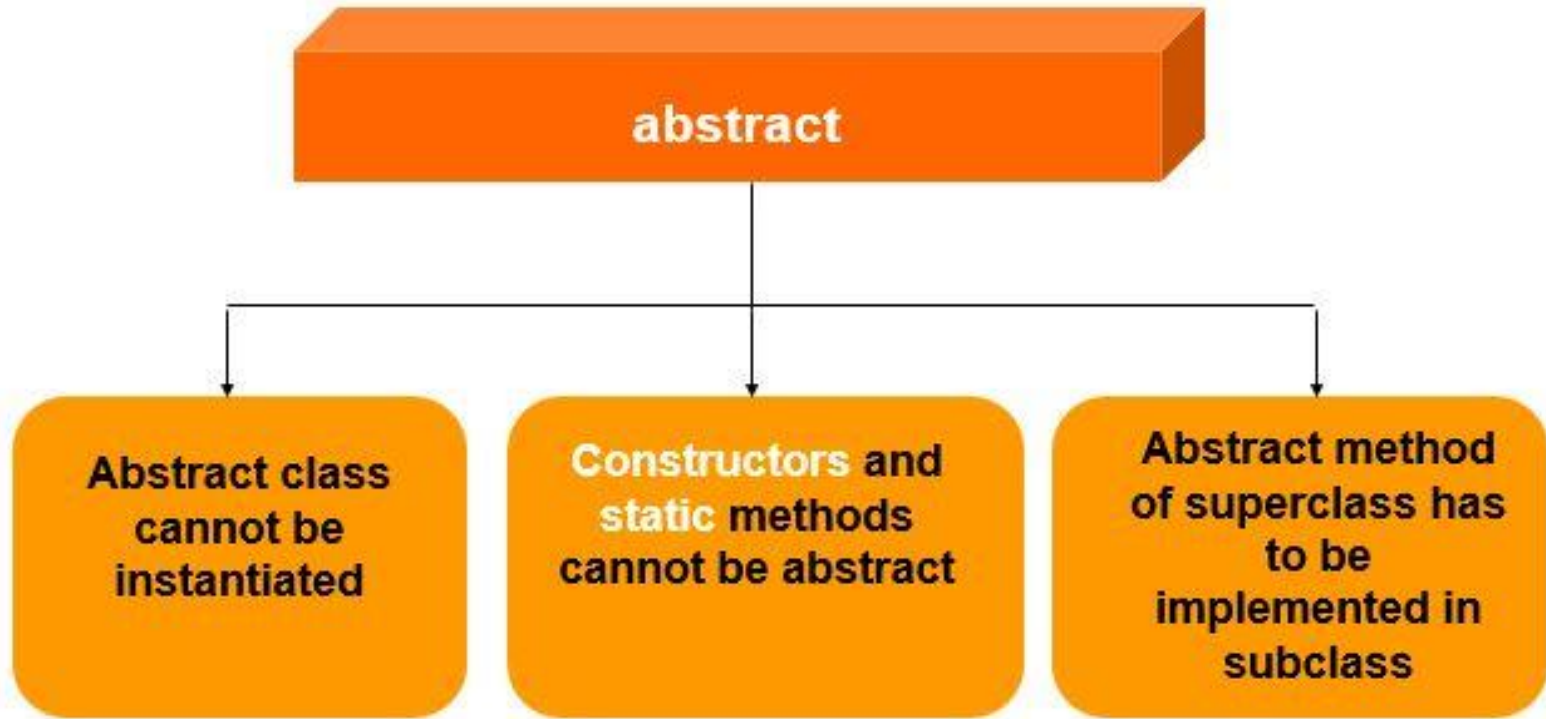
- Certain methods in the superclass do not contain any logic and need to be overridden in the subclass.
- The keyword `abstract` is used for such methods.
- The subclass provides implementation details of such abstract methods.
- The syntax is:

`abstract type method_name(parameter_list);`

- Any class that contains one or more abstract methods must be declared as `abstract`.
- The class keyword should be preceded by the `abstract` keyword when declaring an abstract class.



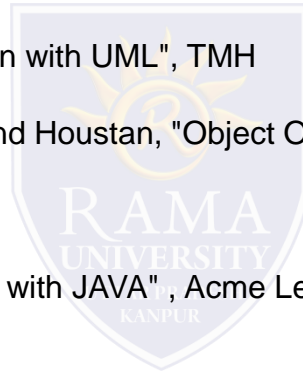
abstract MODIFIERS



- An abstract class can have object references that can point to a subclass object.

REFERENCES

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MULTIPLE CHOICE QUESTION

Multiple Choice Question:

Q1. Which of these keywords are used to define an abstract class?

- a) abst
- b) abstract
- c) Abstract
- d) abstract class



MULTIPLE CHOICE QUESTION

Multiple Choice Question:

Q2. Which of these packages contains abstract keyword?

- a) java.lang
- b) java.util
- c) java.io
- d) java.system

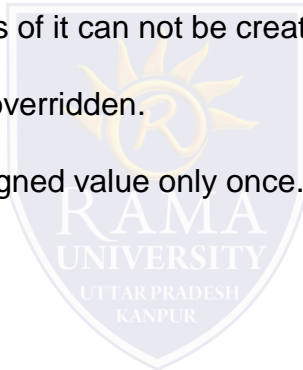


MULTIPLE CHOICE QUESTION

Multiple Choice Question:

Q3. What is the use of final keyword in Java?

- a) When a class is made final, a subclass of it can not be created.
- b) When a method is final, it can not be overridden.
- c) When a variable is final, it can be assigned value only once.
- d) All of the above



MULTIPLE CHOICE QUESTION

Multiple Choice Question:

Q4. Which of these keywords is used to prevent content of a variable from being modified?

- a) final
- b) last
- c) constant
- d) static



MULTIPLE CHOICE QUESTION

Multiple Choice Question:

Q5. Which of these cannot be declared static?

- a) class
- b) object
- c) variable
- d) method



Summary

In this PPT, you learned that:

- Some of the method modifiers in Java are static, final, abstract.

