***When does JVM checks for main() ?***

Whether class contains main method or not and whether main method is declared according to requirement or not these things wont be checked by compiler. At runtime JVM is responsible to check these things. If JVM is unable to find main method then we will get **Runtime exception:NoSuchMethodError:main**

**Public static void main(String args[])**

***At Runtime JVM always searches for main method with the following prototype***

***Why is the main method ..***

***Public:-***

* *To get called/accessible by JVM from anywhere , the main method is public* ***.***

***Static:-***

* *Without any existing object JVM has to call main method, so this is possible only if main method is declared as static, thus JVM doesn’t need to create an Object for calling mani method if declared static.*

***Void:-***

* *Main method doesn’t return anything to JVM so main method return type is void*

***Main:-***

* *This is the name which is configured inside JVM as JVM is configured to search method named as” main”. So it is named as “ main”.*

***String[] args:-***

* *It is used to pass Command-line arguments.*

***Case 1:- Can we declare main() as final synchronized strictfp ?***

* *Yes we can declare main() as final,synchronized, strictfp.*

***Static final synchronized strictfp public void main(String[] args) 🡪 All valid***

***Case 2:- Can main() method be overloaded?***

* ***Yes*** *main() method can be overloaded but it should always have method with parameters String[] args, as JVM will first search for this syntax only. The other overloaded methods with main() name should be called explicitly inside like normal methods are called.*

***Case 3:- Is Inheritance concept applicable for main() ?***

* ***Yes*** *it is applicable for main() hence while executing child class, if a child doesn’t contain main() then parent class main() will be executed.*

***Case 4:- Can main() be overrided?***

* ***No*** *main() method cannot be overrided.* *The main() method in Java is* ***declared as static****, meaning it belongs to the class rather than an object/instance.*
* ***Method overriding is based on dynamic (runtime) polymorphism, which only applies to instance methods.***
* *Since static methods are resolved at* ***compile-time*** *(not runtime), they* ***cannot be overridden***

***Main() enhancements from java (v1.7)***

* *Until (v1.6) if a class doesn’t contain main() then we will get* ***RuntimeException:NoSuchMethodError:main()***
* *But from (v1.7) onwards we will get more elaborated information*

***Error: Main method not found in class Test, please declare method as***

***public static void main(String[] args)***

* *From (v1.7)* ***main() is mandatory*** *to start program execution, eventhough class contains static block , it won’t be executed if the class doesn’t contain main(). Will get* ***Error***

*Whereas (v1.6) if we have given static block and main() is not provided still static block gets executed and then get* ***RuntimeException:NoSuchMethodError:main().***

* *If we add System.exit(0) in static block then (v1.6) will get executed without any exception but (v1.7) will still throw error asking main().*

***Case 5:- Can we print something without main()?***

* ***Yes****, by using static block we can print anything on console but, this is applicable only till (v1.6) but from(v1.7) it is impossible to print something without main().*

*What are command-line arguments?*

* *Arguments which are passed from command prompt are called command-line arguments.*
* *With these args JVM will create an array and by passing that array as argument JVM will call main().*