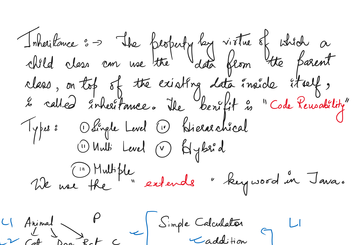
Inheritance :→ The property by virtue of which a child class can use the data from the parent class, on top of the existing data inside itself, is called inheritance. The benifit is "Code Reusability"

Types : (i) Single Level (ii) Hierarchical
(iii) Multi Level (v) Hybrid
(iv) Multiple

We use the " extends " keyword in Java.



* Java doesn't support Multiple Inheritance directly. Why? → We cannot extend multiple classes. We use Interfaces.
* Can we extend multiple classes in Java?
  classes A, B, C ⟹ No

```
class C extends A, B {

}
```

Abstraction :→ (i) Abstract Classes & Methods
(ii) Interfaces → (100%)
(0 – 100%)
Functionality Showing → what is done
Implementation Hiding → How it is done

Hiding the implementation details & only showing the functionality to the "end user" is called data abstraction. It is important for better user experience and customer satisfaction.

Polymorphism : → Poly + Morph
(Latin Word)
Poly → Many
Morph → Forms | Shapes

[Jerika]
→ { class → student
Restaurant → Customer
Home → Daughter }

Role changes but the entity remains same.

(i) Static | Compile time | Overloading (Same class)

(ii) Dynamic | Run time | Overriding (Different classes)

Annotation
@Override
function() override {
C++
}

RBI → 7.5 → Parent
HDFC → 8 → C1
IDBI → 8.5 → C2
ICICI → 9 → C3
} diff

w3schools.

toString() → Wrapper class
java.lang.Object

→ primitive → class [Boxing]
class → primitive [un-boxing]

Tejaka Nancy Reddy

Wrapper Classes → Double Character etc

int, char
Kunal Kushwaha

Java is not a pure OOP language.

Handling Exception handling → Exception
unhandled
Shreekanth
College Building
Hostel
RIET
Rajmant
stairs

Anything that disturbs / disrupts the normal flow of code execution is called an exception.
The process of handling exceptions is Exception Handling.

Throwable
→ Error → Runtime → compile time
GTA → 16 GB RAM
8 GB → Out of Memory Error
→ Exception → Object
* checked → known
* unchecked → unknown
* custom / UDEception

C++	Java	Python
try	try {	try:
catch	} catch ( ) {	except:
* No finally	} finally {	finally:
	}	

raise

try, catch, throw, throws, finally, Throwable.

→ multi-catch block → Java 8

```
c        catch (Ex1 | Ex2 | Ex3 ex) {
c            custom message;
c        }
```

JIB ? Instance Initializer Block.

M MGH Am
1, 2, 3, 4, 5, 6, 7, 8 → J, A, M
MGH U J J-U-CO

→ Eclipse IDE for Java & web Devs
(9, 10, 11, 12)

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