- implement polymorphism, inheritence, encapsulation etc
- -> why is oop used?:
- 1) To make development 4 maintenance et projects easier.
- 2) To hide & seave data
- 3) Provides solution to real-world problems
- D Package:
- > Grouping of related classes & interfaces into a single vint
- > Syntax: package package noune;

Keyword

-> Compilation: javac -d. Parkagetrample. jeva

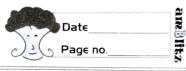
java packaget. Packagetxample, java

- 2) Access Modifiers:
- 1) Private data members f methods inside this aren't accessible from outside class.
- 2) Défautt Only accessible soinside some package
 - 3) Protected Allows access inside some package & outside package inharitance.
- 4) Public Can be accessed anywhere in program.
- (3) Class:
- Entity that serves as basis for definition of now data type.
- > Syntax: Modifier class class Nome

3

- 9 Object:
- Used to access members of class.
- > Syntex: Dog obj = new Dog ();

(5) Static:	
This keyword enables memory allocation of usage of variable	e
This keyword enables memory allocation of usage of variables or method only once.	
> Suntar: at 1: :-	
Static ut a;	
> Syntax: static int a; static void main();	
6 Fuial:	
> Once assigned to variable, we can't change to value.	
3 C 1	
> Syntax: final int a = 10;	
$\alpha = 100;$	
System-out. print (a); > compilation error	
7 Constructors:	
- Consequences	-
> It's a member function of class I has some name as class	
The same as class	5-
Syntax: public class Test {	+
Test () {	
3	
7	-
	1
> Default & parameterized are 2 types.	•
product of present of the same	•
	30
	•
	1 4



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(8) This:		,
> Used to so too instance and I los		
> Veed to refer instance variables > "invoke constructor > methods	of class	
invoke constructor	(1)	
methods		
-> can be passed as paramet	er in method call	
-> can be passed as paramet	" constanctor"	•
-> " " used to setup i et	and at charle for	u otto
-> " " used to return inst	ance of the	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
9) Super:		
ło		
> Vsed refer to instance variable > " " call methods of parent > " " constructor " "	e of perent clas	.
-> " " call mathods of passent	- clase.	
-> K (1 11 County las un 1)	11 ,	
Showacro,		
(10) Encapsulation:		
methods into single unit.	ta members & coeres	sonding
methods into single unit.		0
O		
> The a phose data hiding & soc	ules data.	
> It enables data hidrig & sec		
(11) Inhoritance:		

-> It enables code housability

-> It also halps to achieve polymorphism

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→ Types:		
1) Suigle-inheritence - Due de la la	4 2 0	
1) Suigle-inheritence - one class extends to	the other class	
Syntax: class Superclass {		
}		
class Subclass extends Superclass.	\	
3		4
		10
2) Multilevel inheritence - When class inherits	s from derived	4
new class.	sale class of	5
Syntax: class A ?		9
		0
class B extends A {		0
<u></u>	24	100
class c extends B {		<u></u>
		1
3) 11: - 1: 1: 1: 1:	*	9.
Hierarchical inheritance - one class serves	as base class is	
for more than one derive	d class.	
yntax: class A & class C	e.	
class C exte	nds A §	
class B extends?	30	
1		

Page IIO. (12) Polymorphism: - Ability to perform single action in multiple ways. 5 (3) Interface: Methods declared here are abstract i.e. they don't have body > It helps to achieve nuttiple wheretonce Syntax: interface & Test { -> Multiple wheritance :interface Test 1 { interface Test 2 { public ches class Main implements Test 1, Test 2 } public static void main (String [] age) { Main obj = new Main ();