1.a) Aggregation: It is a relationship where one class uses another class, but both can exist indépendentlyse souls montous Example: A Caro has an Engine, but the engine can exists without the can. void stoot () {

System.out.paintln ("Engine stants"); the heart can not turction independent class Heart class Cor { ; ( ) book "pritted 21 Engine" rengine = mew Engine (); // Aggree galion void start (oc () { engine stood () : mamult 22010 private Head head new Heart () & Composition void live () {
heart beat ();

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Composition: His a stronger form of association where one class contains another class as pool of itself, and the contained class can not existindependently (प्रकेटा क्राउर प्याधिकेटी क्रामदक निलं प्रका रिलिय तिला प्रवर पार वाद्या होता तार वास्त्र त (43) : ( Example: A') Humantuo. has a Heart, and the heart can not function independently class Heart f void beat () { } room again : () sin System.out. println ("Heart is beating"); action yord start Case () f class Human of books, singles private Heart heart = new Heart (); 11 Composition void live () {

heart.beat ();

1.6) import java. util. Annaylist; import java. util. Collections; trilmoral (0) 11 Dance Competition are public class Dance Competition & main method would public static void main (String [] avegs) 1 AnnayList < string > cityA = new AnnayList <> (); Annay List < string> cityB = new Annay List <> (); 1/city A 200 city B - 40 5) The winning Annay List Total : (Aprio +": Aprio molay? 2 ( City A. add (Sophia") jug. two malzy? city A. add ("Olivia");
} ("bingoe") emistros. teillonitari Add : (city B: add ("Liam") it = xobmi +3041 Sustem out point ("illoah") is Brooksi ("illoah")) is ming to a metail i Don'i city B. add ("Ava"); System.out.pointln "Sophia is not in the competit

3 AnnayList < Strong > PinalList = new AnnayList <>(); The military of finalist. add All (cityA); 11 city A was city finalList add All (cityB); tropa final List-ताथादण रुख । static void main (Strip) a finallist perove (finallist size () -1); (Ava) 对方 (Ava) 对方 (Ava) 对方 (Ava) 对方 (Ava) 对方 (图 2(阿丁) (City A ste city & The Autio) कि 1/ छिनाए point कता शला। System. out. println ("CityA:"+ cityA); System. out. primtlin ("CityB:" + cityB); System.out. println ("FinalList:"+finalList); if (final List. contains ("Sophia")) \$ int index = timal List: index Of ("Sophia"); 以外 System. out. println ("Sophia" is briceady; to dance f. ("NA") Index; "+ index); } else { System.out.prointln ("Sophia is not in the competition

11-ProalList - GO A-Z AN NIGHT 2016 Collections. Sout (finallist); System. out pointln ("Sorted FinalList: "+ finalList); 8 System. out. print In (" Total participants:"+ Desir le 22010 for RIMARE (m) monto EfinalLististize(1); ्राहि चिन्द्र कव्या । प्राहित कव्या । 1 Public Movie () ? 11 default constauction III काला ज्यान जा निवर्ष काल कर public Movie (Straing title, Straing director) { this title = title; I Parameterized . this directon = dinecton; sporter non Mork (. Inception; PLT ("moloN' mondotsind" माण कर्न करावा विभान title U director the 201 Public void settitle (straing title) for this title = title; 11 setter method यात्रेल रायदान मेमी ह 3 direction पत्र जान त्यारे प्रमाण

1.c) The mine was the trade with the public class Movie { // Movie AICH LADE private String title; // yto variable declare to private String dinector; 2(40), a variable of miles of the string dinector; affaire and class as the off DITO LECTOR D. Fillowil 11 Access THAT 21164. ा छिम्ब जन्दी जिल 11 default construction, AT public Movie () { व्याला सान ना मिल काछ क्ष public Movie (Stroing title, Stroing director) { 11 Parameterized this. title = title; constructor this directon = directon; 2018 new Move ("Inception". "Christophen Nolan") TIT याणा कल कत्राता ज्यान title & director (Nt 2(A) माद्व । public void set Title (strong title) s this. title = title; 11 Setter Method नारेख त्यद्व tille उ director एवं सान सिं वस्रिए नावि।

public void Set Director (String director) {

This director = director; rava . lilu nvar public String get Title () of Method Tretwon. title;

Judicelon () of Alaceton () memorgy or space, ; notospribedinoulous, saving Example: Example: Example: Amy scanner can be can be used. : the used. Intenstellar James Camenon. Inception. Chiristopher Nolan.

1.d)	Difference between import java. util. *; and import java. util. Scannoc.	
ICA :	Java.uitil. *	java util. Scanner.
	Imports all utility classes from java. util package.	Imports only Scanner chass.
	<del>10</del> 1012 ·	Loads only the
		memory.
	Example: AnnayList, Scanner etc can be used.	Example: Only Scannor can be used.
		50019+2019-1-1

Interestellar
James Cameron.
Inception.
Chiaistopher Nolan!

1) intenface WBehaviores public void // WBehavior work interface III allacki) void allack (); नासर पकिए Method declare of 121 अस्तिव जाकश्चलवं निवस gas Weapon () f खिन्न जाहन्न वाकाए ( To towie of growing of the state of the st @ intenface Wtype { void Weapontype (); 11 प्राञ्जिति Melee नाकि Ranged OI (AMIG). 1. व्योवर KD - ए लामान वानावाम प्राची 2. Wesponlype @- Melec- the Boun B. Mas Weapon B. - Dirling H abstract class Weapon implements WBehavior, Wtype of wood 22010 @ abstract. void has Weapon (); :(" word on tood?") alling (about on coolew"); किना ए दिन्यादि। a class Sword rextends Weapon filling : ("before public woid attack (i) 59. buo motors); System.out. praintln ("Swing the Sword!"); public void has weapon () {
System out pointln (" You have a bowl!);

() mogram sold offuck () - 10/4 (\$151) TOTALLY 2. Weapon Type) - Ranged type 3. has Weapon () - छ। नाय (य April Drimlenface abstract class Melee Factory?

abstract void create Melee Weapon (); কাঢ়াকাড়ি মুদ্দের অন্ত छित्रि छता यापश्र public void creeate Ranged Weapon () & abstract class Range Factory abstract void create Ranged Weapon (); : () nogpoly होते । स्थितं ज्याक्रमालवं : () nogpoly होते । स्थितं ज्याक्रमालवं System. Out printh ("Ranged weapon is consided": 6 class Weapon Factory extends Malee Factory, Ranged Factory & // java to multiple inhepitance 2 (20100 [] print?) minn support sact at intenface Weapon lactory Destony new Weapon lactory; tactory. cheate Malee Weapon (); Jacobay, create Ranged Weapon

public void Weapon Type () } System. out. print In (" Weapon Type: Melee'); morte water protection declare myd att public void has Weapon () & System. out. println ("You have a sword!"); : // Method implementation (h.H. 11 DIZITE Melde arto 1. allack() - एलायाव हालाताव actio Ranged of Control 1 2. Weapontype()-Melee type train 3. has Weapon() - छ। नाय (भ Weapon implements WBehavior class Bow extends Weapon S public void attack () { Systemout println ("Shoot an aoow !"); public mivoid Weapon Type () ? 22010 (1) System. out . print In ("Weapon Type: Ranged"); System.out. println ("Swing the Sword!"); public void has Weapon () of System. out. pnintln ("You have a bow!");

public void create Melee Weapon () { Weapon sworld = new Soword (); Sword affack (); 11 Sworld क्वाराव पक Object, IT. Weapon sworld. Weapon Type (); न्त्रेडि(अवं त्यकार्यमा कि sword has Weapon (); चेत्र वाल्य। () magagin () System.out. preintln ("Malee weapon is created"); मह प्रकृत १०० १११० public void create Ranged Weapon () { Weapon bow = new Bow (); () rospow bow, allack (); blov boots do bow. weapontype(); 4 190100 - bow has Weapon (); System.out.pnintln ("Ranged weapon is created"); @ closs Weapontactory extends Malee methory Ranged Fuctory ? and Tripublic welass Main & public static void main (String [] orgs) S Weapon Factory Tactory new Weapon Factory -factory. create Malee Weapon (); -factory. create Ranged Weapon ();

Java TO IDException GART import java.io. \*; checked exception, vie wil निराय custom exception रेजि use कवाय ज्याला import कम् इस कल्या exception क्रामक extend कल्) class UnderAge Exception extends Exception { public UnderAgeException (Straing message) { (super (message); (message accept pra ( C) materialization of metality Exception and Mills) class Library System of public void checkAge (int age) throws UnderAgeException, JOException ? यिक खारे था विक स्म The Exception throw page off throw new UnderAge Exception ("UnderAge Exception") else if (age >30) (1990 x 101) notro throw new IOException ("User is rold enough");

Total modelse for System.out.prointln ("Congreatulations! Your age exception fathers extend and) Unifort ge Exception extends Exception { Briplie Angeoffle Exception (3 paint mesself) of publice static void main (Strong [] augs) } Librany System l = new Library System (); int [] testAges = \$10,25,35} under perfed over ton (intage: test Ages the at which & the year of l. check Age (age); (check Age Tool System.out.println (e.get Message()); System. out. printin (e. getmessage ());