Jowa Programming

CSA-0985

Assignment - 3

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Generic class in Java - 100 de 100

Java Crenerics was introduced to deal with type-safe objects. it makes the code estable. Java Crenerius methods and classes, Enables programmer with a shrigh method cledaration, a set of related methods, a set of related methods, a set of related types. Generics also provide compile - time type edafety which allows fragrammers to catch invalid types at compile bine.

Generic means frarameterized bytes. A ceneric class simply means that the Items or functions in that class can be generalized with the Parameter (example 7) to specify that here can add any type as a Parameter in place of T like integer, char, string, souble or any other user-defined type.

Eg: single type parameter. I class solution & 770 solutions (Toly before objects it makes the Public static T getdate () Evet slassics.

return data: det of related before Generics with provide Mongiles Emil teype which allows 2) classet A L Fito vir Lotter to con warrent compile line. Cereire party in John sienes e met est (ot data) for primite deals siveren shoreng stress datas = datast ni emedin with the Torumeter (excelepte T) Eo exacts Public To getdata () no see that return bris data;

multiple type frameters: Public class pair 2k, v >5 Private K Key; Private v value; class Af ? Public Pair (1x Key, iv value) & ildu? this Keyn=1key; his hus modey? this : value = value, . Ino neder? Public K getbey () { xeturn Key; } Public v getvale () & return values; } 3 +30 ED quird 2) rison, bigger jedender juder? Creneric methods are methods that introduce their own type parameters. This is Similar to declaring a generic type. but the type parameter's scape is limited to the method where it is declared static

and non-altabie generic methods are allowed. as well as generic class constructor Private 10 pays Eg:-Private v value; class A & Public & T. 7 void g method (Tdata) & System. out. Printly ("Generics method:"); Systen out. Print ("Data Passed: "tolata); Public 10 gobber () (seems 100) } Public dass mais Enteres v silder Public Atatic void main (string [] arys) s A obj = new A(); Obj < obstring > g method ("Jaogo Programing); i objet Integer > 9 method (25) Similar to dollaring a generic best ralines les tryk parameters short a vinited to the method whom it is doublered about

outful: Generics method: Data Passel: Javafrogramming Chenerics method: No bloo ding made. Outa Paissed: 25 tions of miles I starte I william 1, with Hashriese: -edice: ") white . I.o. . restant. hasnest () method to sheck it we have and infuts left in the consolo to be read. It it returns true, it read the reset injut; otherwise fue broat bron the Loop. class main & public static void mair (string () argset) vector / string > fruite = new vectore fruite - Odd ("apple"); fruite, add ("orange). System, out-printlin (fruite).

String out Printen (elements) vector Lastring > Indian fruits = now vectors, indianburits add ("Pore"); indianpruite. add all (fruits); system. out. Println (fruits); Heratr < strings) "terate = indian fruits system. out. println (" vectors: "); Schile (literate : hestent (2) & de System dont Printer (itarate noit (); Hone and I System. out! Print en di J. Loee Non de sent doerd on occuredo dufi class main & Public estentie void mais (esteringerion sector & ostring > fruits = new vector puite. acles ("dyplo"); printer wild (" Drange). sublem out existing

Carly with Tong Alleg Stack:-A Stack is a generic data estructure that represents a LIFO (last in first out) Collection of objects allowing for husberg/popping elements in constant time. For the new Inflementations. we should barren the Deque interface and its implementations. linew calledian that spirit get import java atil + Stack; dende class remain & brown being delich Public Static void mech (String [3arx) Stack / String puits = mew stack 27 fruits Push (Item = "APPle");
bruits Push (Item : "orange"). bruits pust (iten: "margo") skysten out / Println (" stack: 14 binity String ranove = bruits . Pop() System . Out. Println ("stack:" de la company server,

fruits Pust ("Pinapple"); fuits. Peer (1; skysten out Pinten (Display); inte Pos = fruits, search ('orange i): boolean = fruits, entry (); System out. Println(ei); Deane in Jame; A linear callection that supports. element insertion and removal/at both ends. The name deary is short for double ended queue "and is usually is pronounced "deck". infait java tong; import Java util. linked listing inhort. Java util. A gray Deane; class main. Public static void main (string C J augs) L'Array Deane 2 Astrin > frants = new.

fruits add (" Apre "); fruits . add ("Barana"). fruits add first- ("orangs); fruits. add last ("margs"), system. cent. Printlyn ("sequene: "+ fruits); String= fruits remove (); system = out. Println ("Dequeaus: "+ v); System. Out. Println ("Dlaune: "+ fruits") string display = prints - Peck (); System. out. Println ("Dlaveul:"+ boolean e= fruits is Empt(); display); System. out. Println ("is the Dequeue is Systen Cout. Println ("Entry Dequeue"+ boolour e= fruits. (s Empty(); fruits) system. out. Println ("is tre sleave is Emply: "+e1);

Briority Quene: (14/11) lobo. Ediund infort Java util Priory anne, infort. Java. citil. Quene Public class fruit Priorityqueux Public static void main (string (7, aug) on the land secured of the Cenene & estring > brutriorety are new (1) 402 1 = 23 in 4 = policity curen <>(). fruit Privity Dutie adl ("Blue barry") fruit Privity auste add ("Strausbery) System cout. Printly (fruitpirority and pay C= fruits (s-Et) (Mass) the clear is and the order of the state of risterm (0) 2 h / 1 / 2 / 4 m 3