

### Boot Camp Day 3

No	Quiz/ Question	Input Data	Output	Time (Min)	Hint
1	<p>Write a program for the following:</p> <p>a. Matrix transpose</p> <p>b. Matrix multiplication</p>	Input elements for two matrices	Print transpose of 1st matrix and result of multiplication of two matrices.	30	Print transpose using enhanced for loop. Define two methods(1. Transpose and 2. Matrix multiplication.
2	<p>Given following are the marks scored in different subjects by 5 scholars.</p> <p>76 78</p> <p>68 87 69</p> <p>84</p> <p>84 58 68 72 71</p> <p>64 81 59 62</p> <p>Write a java program to print sum and average of the marks scored by the scholars.</p> <p>Note: Store the scholar names in a one dimensional array of strings.</p> <p>{"Raj", "Rishi", "Pooja", "Pranshu", "Prateek"}</p>	Input the marks scored by the scholars:	<p>Raj: 154</p> <p>Rishi: 224</p> <p>Pooja: 84</p> <p>Pranshu: 353</p> <p>Prateek: 266</p>	45	Use jagged array

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3	<p>Consider the following rules for the evaluation of a physical fitness for a post where only men can apply.</p> <table><tr><th>Age</th><th>Weight in pounds</th><th>Height in inches</th></tr><tr><td>Below 20</td><td>Not Eligible</td><td>Not Eligible</td></tr><tr><td>20 to 30</td><td>155 to 175</td><td>5'2" to 5'5"</td></tr><tr><td>30 to 40</td><td>170 to 180</td><td>5'4" to 5'6"</td></tr><tr><td>40 to 50</td><td>175 to 185</td><td>5'6" to 6'0"</td></tr><tr><td>Above 50</td><td>Not Eligible</td><td>Not Eligible</td></tr></table> <p>Propmt the user for name, gender, age and weight with units. (Units for weight could be in Kgs or pounds and height could be in cms or inches). If the user enters pounds and inches, check it aganist the table given and disply their eligibility result. If the value is provided in cms and kgs, then convert and display their eligibility result. if the candidate is female, then display result as "Only male candidates are allowed."</p> <p>Hint :</p> <p>1 Kg = 2.2 Pounds</p> <p>1 inch = 2.54 cms</p>	Age	Weight in pounds	Height in inches	Below 20	Not Eligible	Not Eligible	20 to 30	155 to 175	5'2" to 5'5"	30 to 40	170 to 180	5'4" to 5'6"	40 to 50	175 to 185	5'6" to 6'0"	Above 50	Not Eligible	Not Eligible	<p>Input:</p> <p>Case 1 : Input values that are in correct range and in pounds and inches.</p> <p>Case 2 : Input values that are not in correct range and in pounds and inches.</p> <p>Case 3 : Input values that are in correct range and in Kgs and cms.</p> <p>Case 4 : Input values that are not in correct range and in Kgs and cms.</p> <p>Case 5 : Input values that are not in correct range and in pounds and inches and with gender as female.</p>	<p>Output</p> <p>Display details along with eligibility result</p>	60	
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4	<p>Write a java program for the following:</p> <p>a. Array insertion</p> <p>b. Array deletion</p>	<p>Input array elements:</p> <p>5 7 12 8 1</p> <p>Input the position to insert: 2</p>	<p>Array after insertion: 5 50 7</p>	30	Use enhanced for to print the array elements																		

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5	Write a java program to implement Bank-SB-Account Class with a constructor to initialize acct_no, customer_name, trans_type, trans_amount, bal_amount data members. Create member functions to update the balance amount based on the type of transaction (deposit, withdrawal) and show the customer information with the new balance amount.	Input account_no, customer_name, trans_type and balance amount:	Account no: 12122 Customer name: Raj Transaction type: Deposit Transaction amount: Rs. 7000.00 Balance amount: Rs. 25000.00 New Balance: Rs. 32000.00	30	Using class, object and constructor.
6	Write a java program to input electricity unit charges and calculate total electricity bill according to the given condition: For first 50 units Rs. 0.50/unit For next 100 units Rs. 0.75/unit For next 100 units Rs. 1.20/unit For unit above 250 Rs. 1.50/unit An additional surcharge of 20% is added to the bill.  -Use class, object, constructor and finalize method to implement the above program. -Use a static variable to store the state name. -Assume the class members on your own.	Input Customer_id, customer_name and all other required fields.	Customer name: Raj, Bill amount: Rs. 4500.00	30	Use a static method to initialize the static variable.

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7	<p>Create a class to overload the following method to find out the area of different shapes:  Method name: area()  Shapes:  a. Triangle  b. Rectangle  c. Square</p> <p>Also use the concept of var-args to implement the above.</p>	Input the values as per requirement:	<p>Using overloaded method:  Area of Triangle: 23.56  Area of Rectangle: 21.67  Area of Square: 34.5</p> <p>Using var-args:  Area of Triangle: 23.56  Area of Rectangle: 21.67  Area of Square: 34.5</p>	30	Polymorphism Var-args
8	<p>Consider the following code:</p> <pre>public class Person{ private String name; public static void main(String str[]){ Person p=new Person(); _____ System.out.print(p.name); }}</pre> <p>What statement can be put in line 5 so that the code prints "Prateek"?</p>				Analyze and solve without system.

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9	<p>Consider the following code and arrange the statements in proper order so that the following output should be printed:</p> <p>Output: x=1, y=2</p> <pre> public static void main (String[] args) { System.out.println("x=" + y + ", y" + x); } int x = 1; public class Test{ int y = m1(x); public static int m1(int x) {return ++x;} } </pre>		x=1, y=2		Analyze and solve without system.
10	<p>A class 'Student' have private attributes regno, name &amp; mark. Add methods to read values from user and print student data. Read and print information for multiple objects.</p>	Read student info and initialize the data members using a constructor.	Print all the student records from the array.	30	Use array of objects
11	<p>Create a class 'Point' with variables x and y. Add a static method which takes two point objects as arguments and find the distance between two points.</p>	<pre> Point p1 = new Point(-1, 1) Point p1 = new Point(3, 4) System.out.print(Point.distance( p1, p2)) </pre>	5	30	Find the formula to find distance between two points