**Velammal College of Engineering and Technology, Madurai-625009**

**(Autonomous)**

**Department of Computer Science and Engineering**

**Assignment II**

**Degree : B.E/CSE Year/Semester/section : II/III/B**

**Course Code-Title :21CS203/Object Oriented Programming Batch: 2021-25**

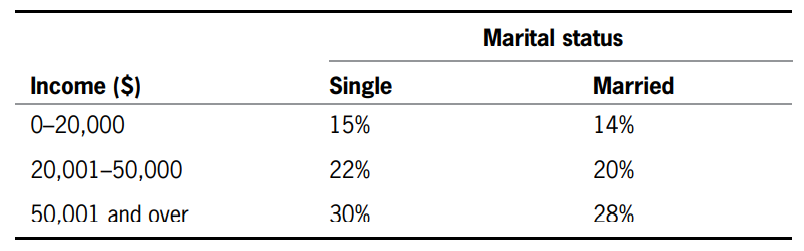
**Name of the Instructor:J.Shanthalakshmi Revathy**

**Announcement Date : 1.10.22 Submission Date : 10.10.22**

**Total Marks : 20 Relevant COs : CO2-K3**

**Questions**

Create a TaxReturn class with fields that hold a taxpayer’s Social Security number, last name, first name, street address, city, state, zip code, annual income, marital status, and tax liability. Include a constructor that requires arguments that provide values for all the fields other than the tax liability. The constructor calculates the tax liability based on annual income and the percentages in the following table.



In the TaxReturn class, also include a display method that displays all the TaxReturn data. Save the file as TaxReturn.java

Create an application that prompts a user for the data needed to create a TaxReturn. Continue to prompt the user for data as long as any of the following are true:

* The Social Security number is not in the correct format, with digits and dashes in the appropriate positions—for example, 999-99-9999.
* The zip code is not five digits.
* The marital status does not begin with one of the following: “S”, “s”, “M”, or “m”.
* The annual income is negative.

After all the input data is correct, create a TaxReturn object and then display its values. Save the file as PrepareTax.java

**Instructions:**

* Submit softcopy with neat formatting and commenting -On time submission required
* Specify at least five references.

**Evaluation Rubrics:**

|  |  |
| --- | --- |
| Coding | **10** |
| Explanation | **4** |
| References | **2** |
| Timely submission | **2** |
| **Total** | **20** |

**Course Incharge HoD-CSE**

**Ansewer-->:**

**ALGORITHM:**

**Step-1-Start.**

**Step-2-create the class called Taxreturn with the Social Security number, last name, first name, street address, city, state, zip code, annual income, marital status, and tax liability.**

**Step-3-Check for the TaxLiability Using the constructore check for the a mrital status and check for the condition.**

**Step-4-Incude the display calss and display all the values.**

**Step-5-Create another package with main clas and immport the TaxReturn class.**

**Step-6-and create the object for TaxReturn calss**

**Step-7-Using while loop for promptly getting the input.**

**Step-8-Get all the details from the User and apply the Givn condtions usig**

**Step-9-if loop and check for securityt no shuuld be 999-99-999 format and zip code suuld be 5 digit and msritral status shold be ‘m’.’M’,’s’,’S’**

**Step-10-else preint the enter the correct detail.**

**PROGRAM:**

**package assignment2;**

**public class TaxReturn {**

**public String sec\_no;**

**public String l\_name;**

**public String f\_name;**

**public String street;**

**public String city;**

**public String state;**

**public int zip\_code;**

**//double a\_income;**

**public String marital;**

**double TaxLiability(double a\_income)**

**{**

**double taxliability=0;**

**double income=a\_income;**

**if("s".equalsIgnoreCase(marital))**

**{**

**if(income<=20000)**

**taxliability=income\*.15;**

**else if(income<=50000)**

**taxliability=income\*.22;**

**else**

**taxliability=income\*.30;**

**}**

**else if("m".equalsIgnoreCase(marital))**

**{**

**if(income<=20000)**

**taxliability=income\*.14;**

**else if(income<=50000)**

**taxliability=income\*.20;**

**else**

**taxliability=income\*.28;**

**}**

**return taxliability;**

**}**

**void display(double income,double tax)**

**{**

**double a\_income=income;**

**double taxliability=tax;**

**System.out.println("----------------------------------------------------------------");**

**System.out.println("Social Security number-->:\t"+sec\_no+**

**"\n\nName-->:\t"+f\_name+l\_name+"\n\nStreet Address-->:\t"+street+**

**"\nCity -->:\t"+city+"\nState -->:\t"+state+"\nZip Code -->:\t"+zip\_code+**

**"\nAnnual Income-->:\t"+a\_income+"\nMarital Status-->:\t"+marital+**

**"\n\nTax Liability-->:\t"+taxliability);**

**System.out.println("----------------------------------------------------------------");**

**}**

**}**

**package assignment2;**

**import assignment2.TaxReturn;**

**import java.util.\*;**

**public class PrepareTax {**

**public static void main(String[] args) {**

**TaxReturn tr=new TaxReturn();**

**Scanner sc=new Scanner(System.in);**

**while(true)**

**{**

**System.out.println("\*\*TAX CALCULATOR\*\*");**

**System.out.println("Enter Security Number-->");**

**tr.sec\_no=sc.next();**

**//check**

**System.out.println("Enter Last Name-->");**

**tr.l\_name=sc.next();**

**System.out.println("Enter First Name-->");**

**tr.f\_name=sc.next();**

**System.out.println("Enter Street Name-->");**

**tr.street=sc.next();**

**System.out.println("Enter CIty Name-->");**

**tr.city=sc.next();**

**System.out.println("Enter State Name-->");**

**tr.state=sc.next();**

**System.out.println("Enter Zip Code-->");**

**tr.zip\_code=sc.nextInt();**

**//check**

**System.out.println("Enter Income-->");**

**double a\_income=sc.nextDouble();**

**System.out.println("Enter Marital Status-->");**

**tr.marital=sc.next();**

**//check**

**System.out.println("Enter Security Number-->");**

**char c[]=tr.sec\_no.toCharArray();**

**String zip=Integer.toString(tr.zip\_code);**

**if(((c[3]=='-')&&(c[6]=='-'))&&(zip.length()==5)&&**

**(a\_income>=0)&&((tr.marital.charAt(0)=='s')**

**||(tr.marital.charAt(0)=='S')||(tr.marital.charAt(0)=='m')**

**||(tr.marital.charAt(0)=='M')))**

**{**

**double tax=tr.TaxLiability(a\_income);**

**tr.display(a\_income,tax);**

**}**

**else**

**{**

**System.out.println("Please Enter Valid Detail");**

**}**

**}**

**}**

**}**

**OUTPUT:**

**run:**

**\*\*TAX CALCULATOR\*\***

**Enter Security Number-->**

**123-45-678**

**Enter Last Name→**

**Dinesh**

**Enter First Name→**

**D**

**Enter Street Name-->**

**Bharath nagar**

**Enter CIty Name-->**

**Madurai**

**Enter State Name-->**

**Tamilnadu**

**Enter Zip Code-->**

**625107**

**Enter Income-->**

**20000**

**Enter Marital Status-->**

**s**

**Enter Security Number-->**

**----------------------------------------------------------------**

**Social Security number-->: 123-45-678**

**Name-->: S Dinesh**

**Street Address-->: Bharath nagar**

**City -->: Madurai**

**State -->: Tamilnadu**

**Zip Code -->: 625107**

**Annual Income-->: 20000.0**

**Marital Status-->: s**

**Tax Liability-->: 3000.0**

**----------------------------------------------------------------**

**\*\*TAX CALCULATOR\*\***

**Enter Security Number-->**

**456-78-910**

**Enter Last Name→**

**Kathier**

**Enter First Name→**

**Khamar**

**Enter Street Name-->**

**Vallam**

**Enter CIty Name-->**

**Thirussur**

**Enter State Name-->**

**Kerala**

**Enter Zip Code-->**

**71234**

**Enter Income-->**

**40000**

**Enter Marital Status-->**

**m**

**Enter Security Number-->**

**----------------------------------------------------------------**

**Social Security number-->: 456-78-910**

**Name-->:. Kathier khamar**

**Street Address-->: Vallam**

**City -->: Nagapattinam**

**State -->: Kerala**

**Zip Code -->: 71234**

**Annual Income-->: 40000.0**

**Marital Status-->: m**

**Tax Liability-->: 8000.0**

**----------------------------------------------------------------**

**\*\*TAX CALCULATOR\*\***

**Enter Security Number-->**

**1234567890**

**Enter Last Name-->**

**kumar**

**Enter First Name-->**

**Prasanna**

**Enter Street Name-->**

**Kuravapulam**

**Enter CIty Name-->**

**Thiruthuraipoondi**

**Enter State Name-->**

**Delhi**

**Enter Zip Code-->**

**534268**

**Enter Income-->**

**50000**

**Enter Marital Status-->**

**s**

**Enter Security Number-->**

**Please Enter Valid Detail**

**\*\*TAX CALCULATOR\*\***

**Enter Security Number-->**

**References**

**https://www.chegg.com/homework-help/questions-and-answers/create-taxreturn-class-fields-hold-taxpayer-s-social-security-number-last-name-first-name--q39290071**

**https://www.coursehero.com/tutors-problems/Java-Programming/29488061-Modify-theTaxReturnclass-with-fields-that-hold-a-taxpayers-Social-Sec/**

**https://www.studypool.com/discuss/14610405/write-a-program-on-tax-return**

**https://www.solusyon.live/na-updates-brainly.ph/question/29755745**

**https://books.google.co.in/books?id=nckIAAAAQBAJ&pg=PT361&lpg=PT361&dq**