| 1. | Write a program to calculate tax given the following conditions:  If income is less than or equal to 1,50,000 then no tax  If taxable income is 1,50,001 – 3,00,000 the charge 10% tax  If taxable income is 3,00,001 – 5,00,000 the charge 20% tax  If taxable income is above 5,00,001 then charge 30% tax  Use base class name as IncomeTax and Derived classes are Slab1, Slab 2 and Slab 3. Use TDS() all the classes. |
| --- | --- |
| Sample Input | Enter the total come : 100000 |
| Sample Output | No tax |
| Test Case | 145000 |
| 25000.60 |
| 15000.345 |
| five lakh |
| 5670$# |

| 2. | Write a program to enter the marks of a student in four subjects. Then calculate the total and aggregate, display the grade obtained by the student. If the student scores less than the 50 generate the exception as “fail” otherwise grade is “pass” |
| --- | --- |
| Sample Input | Sample Input & Output:  Enter the marks in python: 45  Enter the marks in c programming: 91  Enter the marks in Mathematics: 92  Enter the marks in Physics: 93 |
| Sample Output | Fail |
| Test Case | 1. 54, 56,34 |
| 2.75.5, 67,68 |
| 3.6,6,6 |
| 4.thirty, fourty, sixty |
| 5.100,100,0 |

| 3. | Write a program to illustrate division by zero exception, get the two input from the user, use divide(int, int) . |
| --- | --- |
| Sample Input | 5,0 |
| Sample Output | divide by zero. |
| Test Case | 1. 12,12 |
| 2. 1,0 |
| 3. 0,0 |
| 4. 23.45,23.45 |
| 5. 30, zero |

| 4 | Write a program to illustrate array index out of bounds exceptions. |
| --- | --- |
| Sample Input | int x[]={10,20,30,40} |
| Sample Output | The element is an array index out of boundary. |
| Test Case | 1. 50,45,3,5,4,10 |
| 2.-5,45,34,6,76 |
| 3.10.3,34,5,2,4,5 |
| 4. FIVE, SIX, SEVEN, EIGHT, ZERO |
| 5. 0,0,0,0,0 |

| 5 | Write a C++ program to throw multiple exceptions and define multiple catch statement. |
| --- | --- |
| Sample Input | int x = 0.00001 |
| Sample Output | The number is too small  Accept only positive integer. |
| Test Case | 1. 12.2 |
| 2. 10.0001 |
| 3. 0.00000001 |
| 4. 0 |
| 5. 5 |