| // driver class |  |
| --- | --- |
|  | class Inheritanc2 { |
|  | public static void main(String args[]) |
|  | { |
|  |  |
|  | MountainBike mb = new MountainBike(3, 100, 25); |
|  | System.out.println(mb.toString()); |
|  | } |
|  | } |
|  |  |
|  |  |
|  | // base class |
|  | class Bicycle { |
|  | // the Bicycle class has two fields |
|  | public int gear; |
|  | public int speed; |
|  |  |
|  | // the Bicycle class has one constructor |
|  | public Bicycle(int gear, int speed) |
|  | { |
|  | this.gear = gear; |
|  | this.speed = speed; |
|  | } |
|  |  |
|  | // the Bicycle class has three methods |
|  | public void applyBrake(int decrement) |
|  | { |
|  | speed -= decrement; |
|  | } |
|  |  |
|  | public void speedUp(int increment) |
|  | { |
|  | speed += increment; |
|  | } |
|  |  |
|  | // toString() method to print info of Bicycle |
|  | public String toString() |
|  | { |
|  | return ("No of gears are " + gear + "\n" |
|  | + "speed of bicycle is " + speed); |
|  | } |
|  | } |
|  |  |
|  | // derived class |
|  | class MountainBike extends Bicycle { |
|  |  |
|  | // the MountainBike subclass adds one more field |
|  | public int seatHeight; |
|  |  |
|  | // the MountainBike subclass has one constructor |
|  | public MountainBike(int gear, int speed, |
|  | int startHeight) |
|  | { |
|  | // invoking base-class(Bicycle) constructor |
|  | super(gear, speed); |
|  | seatHeight = startHeight; |
|  | } |
|  |  |
|  | // the MountainBike subclass adds one more method |
|  | public void setHeight(int newValue) |
|  | { |
|  | seatHeight = newValue; |
|  | } |
|  |  |
|  | // overriding toString() method |
|  | // of Bicycle to print more info |
|  | @Override public String toString() |
|  | { |
|  | return (super.toString() + "\nseat height is " |
|  | + seatHeight); |
|  | } |
|  | } |