// (i) Base class

class TaxCategory {

public double calculateVAT(double amount) {

return 0.0; // Default VAT

}

}

// (ii) Subclasses with specific logic

class Retailer extends TaxCategory {

public double calculateVAT(double amount) {

return amount \* 0.18; // 18%

}

}

class Wholesaler extends TaxCategory {

public double calculateVAT(double amount) {

return amount \* 0.15; // 15%

}

}

class Importer extends TaxCategory {

public double calculateVAT(double amount) {

return amount \* 0.10; // 10%

}

}

// (iii) Main method demonstrating polymorphism

public class VATCalculator {

public static void main(String[] args) {

TaxCategory[] taxpayers = {

new Retailer(),

new Wholesaler(),

new Importer()

};

double[] amounts = {100000, 200000, 300000};

for (int i = 0; i < taxpayers.length; i++) {

double vat = taxpayers[i].calculateVAT(amounts[i]);

System.out.println("VAT on UGX " + amounts[i] + ": " + vat);

}

}

}