- 1. Principle Violated: Liskov Substitution Principle.
- 2. Reason: In the given code, USDollarAccount.java extends the class BankAccount. The principle states that functions that use pointers to base classes must be able to use objects of derived classes without knowing it. It also stated that Subtypes must be substitutable for their base classes. But in the given code, USDollarAccount class cannot be substituted for BankAccount class without modifying any code. This violates the Liskov Substitution Principle. To avoid this violation, instead of extending the BankAccount class, I have created an object of BankAccount class within USDollarAccount class.
- The following code fixes the violation of Liskov Substitution Principle. BankAccount.java USDollarAccount.java