- 1. Principle Violated: Open / Closed Principle.
- 2. Reason: According to Open / Closed Principle, extending behaviour is allowed, modifying the module's source is not. In the given code, PrintCountryGDPReport() method in CountryGDPReport class, calculates GDP of Canada and Mexico. If any method is added to any of those classes, this module cannot be used without modification. It is not locked to changes. To avoid this violation, I have created an interface ICountryGDPReport with method PrintCountryGDPReport(). Each country should implement that interface. Now, CountryGDPReport class can just call the PrintCountryGDPReport() method in each country class. Any change in the country classes will not need the modification of CountryGDPReport class.
- The following code fixes the violation of Open / Closed Principle.
 Canada.java
 Mexico.java
 CountryGDPReport.java
 ICountryGDPReport.java