Test Interface 1 **Interface:** Basic Calculator Interface which has these below methods int sum(int x, int y) • int sub(int x, int y) • int multiplication(int x, int y) • int division(int x, int y) **ScientificCalculatorInterface** • int XtoY(int x, int v) • Other scientific methods that you find best fit for you Develop necessary class to implement these two interfaces and test from main method. Test Interface 2 **Interface:** BasicBankingInterface which has these below abstract methods bool deposit(int amount) bool withdraw(int amount) Consider a bank has three different types of accounts. An account holder (Person/Student) can have any one of these below type. 1. Current 2. Savings 3. Overdraft These three types of account has different advantages and disadvantages Current Account o Current account holders can withdraw all of his/her amount Saving Account o Saving account holders can withdraw maximum 80% of his/her total amount Overdraft account Overdraft account holders can withdraw additional amount which is set by at account creation time (overdraft limit amount) After implement this structure change the account type (ex: current to saving or else) and changes will automatically reflected as well.

You have to develop this scenario on your own.

Test Interface 3 **Interface:** RadioPlayerInterface which has these below abstract methods • void switch(boolean on); void retune(double frequency); void setVolume(int loudness); • void changeChannel(); MusicPlayerInterface which has these below abstract methods • void switch(boolean on); • void play(boolean on); void setVolume(int loudness); void playNext(); void playPrevious(); Develop necessary class to implement these two interfaces and test from main method. Hints: **Ipod** or **Phone** class. It have set of Music files (Array). A phone can have max 500 musics. Hints: MusicFile can be another class that have to be implemented on Ipod or phone class. Class String title; declare private String artist; MusicFile int yearOfRelease; int durationInSeconds; Constructors(empty, parameterized) declare public void changeTitle(string title)

Special Note: Do not code interface and class on same file. Use separate files for interfaces. The interface should be public.