

Name: _____

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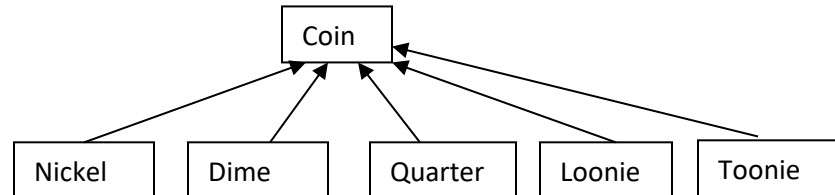
PiggyBank Problem

Create a *MySavings* application that displays a menu of choices for entering nickels, dimes, quarters, loonies, and toonies into a piggy bank and then prompts the user to make a selection. The *MySavings* application should include a ***PiggyBank* object that can add coins to the piggy bank, remove coins, and return the total amount in the bank.** Application should look similar to:

```
1. Show total in bank
2. Add a nickel.
3. Add a dime.
4. Add a quarter.
5. Add a loonie.
6. Add a toonie.
7. Take money out of the bank.
Enter 0 to quit.
Enter your choice: 5
```

Things to Include:

1. Create an abstract *Coin* class that has a *getValue()* accessor method. (4A)
2. Extend the abstract *Coin* class to create a *Nickel*, *Dime*, *Quarter*, *Loonie* and *Toonie* class. (10A)



3. *PiggyBank* should contain an *ArrayList* of *Coin*'s, to represent what is actually stored in the piggy bank. Be sure to consider polymorphism in your implementation. Refer to the instructions above to help you define state and behaviours of the *PiggyBank* class. (10T)
4. Create the *MySavings* application program which uses the *PiggyBank* object. Ensure that your program has at least the 7 menu options described above. (10T)