

- A private `int` data field named `id` for the account (default `0`).
- A private `double` data field named `balance` for the account (default `0`).
- A private `double` data field named `annualInterestRate` that stores the current interest rate (default `0`). Assume that all accounts have the same interest rate.
- A private `Date` data field named `dateCreated` that stores the date when the account was created.
- A no-arg constructor that creates a default account.
- A constructor that creates an account with the specified `id` and initial balance.
- The accessor and mutator methods for `id`, `balance`, and `annualInterestRate`.
- The accessor method for `dateCreated`.
- A method named `getMonthlyInterestRate()` that returns the monthly interest rate.
- A method named `getMonthlyInterest()` that returns the monthly interest.
- A method named `withdraw` that withdraws a specified amount from the account.
- A method named `deposit` that deposits a specified amount to the account.

Draw the UML diagram for the class then implement the class. (**Hint:** The method `getMonthlyInterest()` is to return monthly interest, not the interest rate. Monthly interest is $\text{balance} * \text{monthlyInterestRate}$. `monthlyInterestRate` is $\text{annualInterestRate} / 12$. Note `annualInterestRate` is a percentage, for example 4.5%. You need to divide it by 100.)

Write a test program that creates an `Account` object with an account ID of 1122, a balance of \$20,000, and an annual interest rate of 4.5%. Use the `withdraw` method to withdraw \$2,500, use the `deposit` method to deposit \$3,000, and print the balance, the monthly interest, and the date when this account was created.