

(The **Account** class) Design a class named **Account** that contains:

- 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 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.

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.

(Hint: The

method **getMonthlyInterest()** is to return monthly interest, not the interest rate. Monthly interest is **balance \* monthlyInterestRate**. **monthlyInterestRate** is **annualInterestRate / 12**. Note that **annualInterestRate** is a percentage, e.g., like 4.5%. You need to divide it by 100.)