

## תכנון תכנה למערכת בנקאית

תכנון מערכת תוכנה עוסק במיפוי בין עולם הבעיה ועולם הפתרון

- |  |   |  |
|--|---|--|
| <p>עולם הפתרון:</p> <ul style="list-style-type: none"> <li>■ שפת תכנות</li> <li>■ עצמים</li> <li>■ מחלקות</li> <li>■ מתודות</li> <li>■ שדות</li> </ul> |  | <p>עולם הבעיה:</p> <ul style="list-style-type: none"> <li>■ בנקים</li> <li>■ לקוחות</li> <li>■ משיכות, הפקדות</li> <li>■ חשבונות</li> <li>■ יתרות</li> </ul> |
|--|---|--|

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## Software1

Recitation No. 4  
(Classes, Objects & Method Calls)

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## The Customer Class

```
public class Customer {
    public Customer(String name, String id) {
        this.name = name;
        this.id = id;
    }

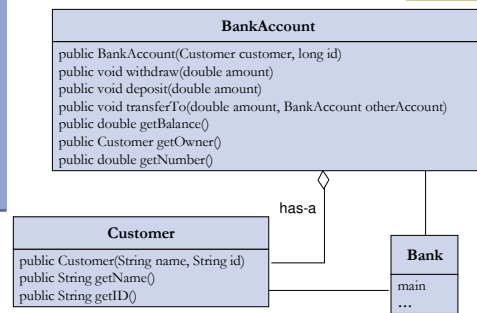
    public String getName() {
        return name;
    }

    public String getID() {
        return id;
    }

    private String name;
    private String id;
}
```

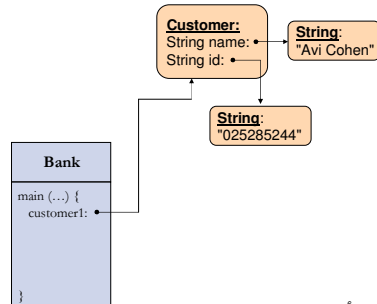
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## Class Diagram



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## Object Diagram



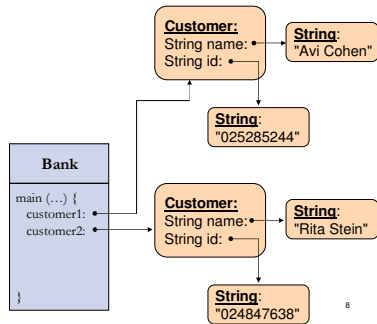
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## Toy Bank Program

```
public class Bank {
    public static void main(String[] args) {
        Customer customer1 = new Customer("Avi Cohen", "025285244");
        Customer customer2 = new Customer("Rita Stein", "024847638");
        BankAccount account1 = new BankAccount(customer1, 1234);
        BankAccount account2 = new BankAccount(customer2, 5678);
        BankAccount account3 = new BankAccount(customer2, 2984);
        account1.deposit(1000);
        account2.deposit(500);
        account1.transferTo(100, account3);
        account2.withdraw(300);
        System.out.println("account1 has " + account1.getBalance());
        System.out.println("account2 has " + account2.getBalance());
    }
}
```

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## Object Diagram

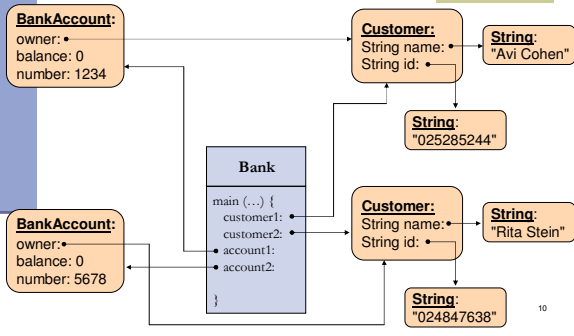


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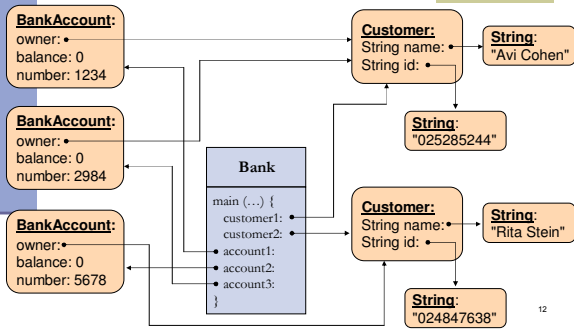


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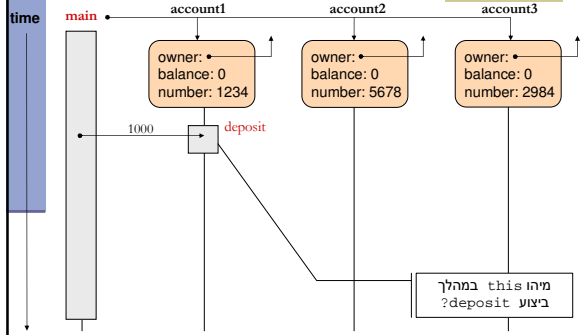


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## Message Sequence Chart



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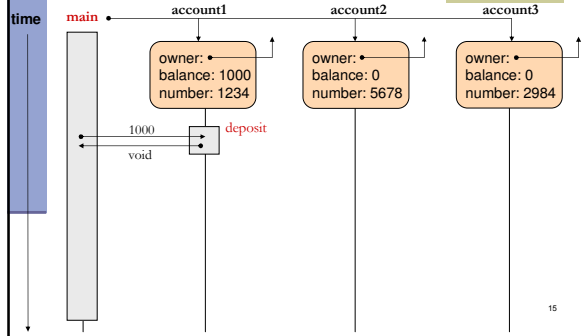
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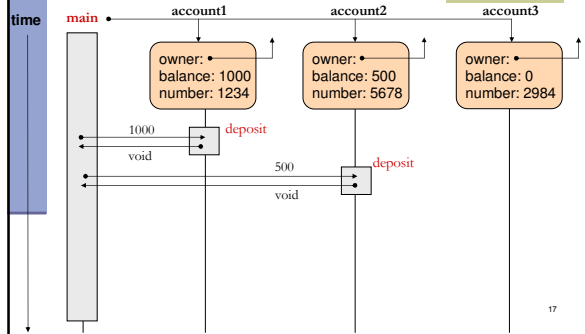
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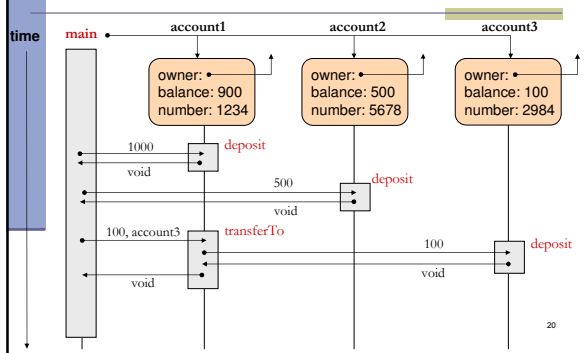
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## Message Sequence Chart

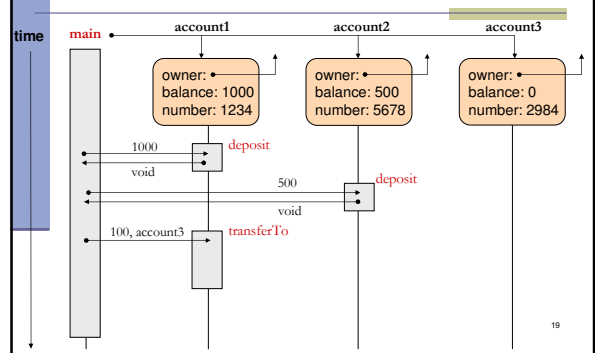


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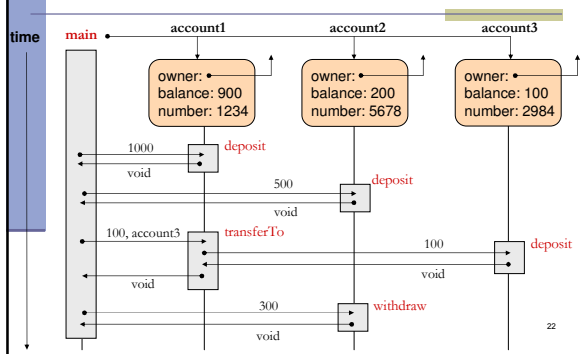
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```

## Output

```
public class Bank {
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        System.out.println("account2 has " + account2.getBalance());
    }
}
```

Output: account1 has 900.0  
account2 has 200.0