# Partea I: Exemple punctuale

(Sursă capturi ecran: <a href="https://github.com/leonardolemie/clean-code-java">https://github.com/leonardolemie/clean-code-java</a>)

# 1. Denumiri variabile - sugestive si explicite

Bad:

```
String yyyymmdstr = new SimpleDateFormat("YYYY/MM/DD").format(new Date());
```

Good:

```
String currentDate = new SimpleDateFormat("YYYY/MM/DD").format(new Date());
```

# 2. Evitare "mental mapping"

Don't force the reader of your code to translate what the variable means. Explicit is better than implicit. Bad:

```
String [] l = {"Austin", "New York", "San Francisco"};

for (int i = 0; i < 1.length; i++) {
    String li = l[i];
    doStuff();
    doSomeOtherStuff();
    // ...
    // ...
    // ...
    // Wait, what is `$li` for again?
    dispatch(li);
}</pre>
```

Good:

```
String[] locations = {"Austin", "New York", "San Francisco"};

for (String location : locations) {
    doStuff();
    doSomeOtherStuff();
    // ...
    // ...
    dispatch(location);
}
```

# 3. Denumiri funcții/metode - consecvență

Bad:

```
getUserInfo();
getClientData();
getCustomerRecord();
```

Good:

```
getUser();
```

# 4. Valori constante (ușor de căutat)

Bad:

```
// What the heck is 86400000 for? setTimeout(blastOff, 86400000);
```

Good:

```
// Declare them as capitalized `const` globals.
public static final int MILLISECONDS_IN_A_DAY = 86400000;
setTimeout(blastOff, MILLISECONDS_IN_A_DAY);
```

#### 5. Variabile ca parametru (in funcții/metode)

Bad:

Good:

```
String address = "One Infinite Loop, Cupertino 95014";
String cityZipCodeRegex = "/^[^,\\\\]+[,\\\\\s]+(.+?)\\s*(\\d{5})?$/";
String city = address.split(cityZipCodeRegex)[0];
String zipCode = address.split(cityZipCodeRegex)[1];
saveCityZipCode(city, zipCode);
```

#### 6. Denumire variabile membre - fără numele clasei

Bad:

```
class Car {
  public String carMake = "Honda";
  public String carModel = "Accord";
  public String carColor = "Blue";
}

void paintCar(Car car) {
  car.carColor = "Red";
}
```

Good:

```
class Car {
  public String make = "Honda";
  public String model = "Accord";
  public String color = "Blue";
}

void paintCar(Car car) {
  car.color = "Red";
}
```

# 7. Funcții/metode separate pentru acțiuni diferite

Bad:

```
public void emailClients(List<Client> clients) {
    for (Client client : clients) {
        Client clientRecord = repository.findOne(client.getId());
        if (clientRecord.isActive()){
            email(client);
        }
    }
}
```

Good:

```
public void emailClients(List<Client> clients) {
    for (Client client : clients) {
        if (isActiveClient(client)) {
            email(client);
        }
    }
}

private boolean isActiveClient(Client client) {
    Client clientRecord = repository.findOne(client.getId());
    return clientRecord.isActive();
}
```

# 8. Denumirea metodelor - spun ceea ce fac

Bad:

Good:

```
private void addMonthToDate(Date date, int month){
    //..
}

Date date = new Date();
addMonthToDate(1, date);
```

# 9. Flag-uri pentru funcționalități multiple

Bad:

```
public int operation(int opType, int val1, int val2)
{
    switch (opType)
    {
        case 1: return val1+val2;
        case 2: return val1-val2;
        case 3: return val1*val2;
        case 4: return val1/val2;
        default: return 0;
}
```

Good:

```
public int addValues(int value1, int value2)
{
    return value1+value2;
}

public int substractValues(int value1, int value2)
{
    return value1-value2;
}
```

10. Fără cod duplicat (evitare copy/paste)

# Partea II: Exemplu proiect complet

- Codul sursă inițial în fișierul InitialSourceCode.txt
- Diagrama inițială a claselor diagram.png