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Day 7 – Assignment

inheritance

- Inheritance lets a class **reuse** properties and methods from another class.
- The class that inherits is called the **subclass** or **child class**.
- The class being inherited from is called the **superclass** or **parent class**.
- Use the **extends** keyword to inherit from a class.
- The subclass can **override** methods of the superclass to provide its own behavior.

Ex:-

```
class employee {
    String? name;
    int? id;
    String? designation;

    employee() {
        print("this a default constructor of super class");
    }

    void displayEmployee() {
        name = "roshan";
        id = 1;
        designation = "SE";

        print(
            "${this.name} - your id is ${this.id} and your designation is  

            ${this.designation}",
        );
    }
}

class manager extends employee {
    manager() {
        print("this is the defalut constructor of the derived class");
    }
}
```

```

void displayManager() {
    this.name = "suresh";
    this.id = 2;
    this.designation = "senior SE";

    print(
        "${this.name} - your id is ${this.id} and your designation is
        ${this.designation}",
    );
}

void main() {
    manager m = manager();
    m.displayEmployee();
    m.displayManager();
}

```

Super Constructor

- A **super constructor** allows a subclass to call a constructor of its superclass.
- Use the super keyword in the subclass constructor to pass values or initialize the parent class.
- This is useful when the superclass has required parameters or initialization logic.

Ex:-

```

// super constructor in dart

/*the subclass can inherit all the methods of the parent class but cant inherit
the constructor of the parent class/super class*/

class employee {
    String? name;
    int? id;
    String? designation;

    // employee() {
    //     print("this a default constructor of super class");
    // }
}

```

```
employee({String? name, int? id, String? designation}) {
    this.name = name;
    this.id = id;
    this.designation = designation;
}

void displayEmployee() {
    print(
        "${this.name} - your id is ${this.id} and your designation is
${this.designation}",
    );
}
}

class manager extends employee {
    manager() : super(name: "roshan", id: 22, designation: "SE") {}

    void displayManager() {

        this.designation = "senior manager";

        print("designation of manager is ${this.designation}");
    }
}

void main() {
    manager m = manager();
    m.displayEmployee();
    m.displayManager();
}
```