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//
// management.swift
// FT_EmployeeContract
//
// Created by Mohammad Kiani on 2019-10-23.
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//
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import Foundation
```

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struct Management {
    static let workingDaysPerMonth = 20.0
    var employees = [Employee]()
    let m1 = Motorcycle(make: "Kawasaki", plate: "Custom Plate", color:
        "Yellow", category: "Race Motorcycle", sidecar: false)
    let m2 = Motorcycle(make: "Honda", plate: "Custom Plate", color: "Black",
        category: "Not for Race", sidecar: true)
    let vt1 = Car(make: "Lamborghini", plate: "Custom Plate", color: "White",
        category: "Family", gear: "Manual", type: "Sport")
    let vt2 = Car(make: "BMW", plate: "Custom Plate", color: "Black",
        category: "Family", gear: "Automatic", type: "Sedan")
    let vt3 = Car(make: "Renault Clio", plate: "Custom Plate", color: "Blue",
        category: "Family", gear: "Manual", type: "Hatchback")
    let vt4 = Car(make: "Mazda", plate: "Custom Plate", color: "White",
        category: "Family", gear: "Automatic", type: "SUV")

    mutating func hire_test1() {
        employees.append(Manager(name: "Serge", birthYear: 1985, nbClients:
            30, nbTravelDays: 4))
        employees.append(Manager(name: "Cindy", birthYear: 1974, nbClients:
            20, nbTravelDays: 6, rate: 80))
        employees.append(Programmer(name: "Paul", birthYear: 1993, nbProjects:
            3, rate: 75))
        employees.append(Tester(name: "Pierre", birthYear: 1987, nbBugs: 124,
            rate: 50))
        employees.append(Programmer(name: "Matt", birthYear: 1981, nbProjects:
            5, rate: 110))
        employees.append(Programmer(name: "Sarah", birthYear: 1986,
            nbProjects: 3))
    }

    mutating func hire_test2() {
        employees = []
        employees.append(Manager(name: "Serge", birthYear: 1985, nbClients:
            30, nbTravelDays: 4, employeeVehicle: vt1))
        employees.append(Manager(name: "Cindy", birthYear: 1974, nbClients:
            20, nbTravelDays: 6, rate: 80, employeeVehicle: vt2))
        employees.append(Programmer(name: "Paul", birthYear: 1993, nbProjects:
            3, rate: 75, employeeVehicle: m1))
        employees.append(Tester(name: "Pierre", birthYear: 1987, nbBugs: 124,
            rate: 50, employeeVehicle: m2))
    }
}
```

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employees.append(Programmer(name: "Matt", birthYear: 1981, nbProjects:
    5, rate: 110, employeeVehicle: vt4))
employees.append(Programmer(name: "Sarah", birthYear: 1986,
    nbProjects: 3, employeeVehicle: vt3))
for item in employees {
    print("-----")
    print(item)
    print("-----")
}
}

mutating func hire_test3() {
    employees = []
    let Serge = Manager(name: "Serge", birthYear: 1985, nbClients: 30,
        nbTravelDays: 4, employeeVehicle: vt1)
    let Cindy = Manager(name: "Cindy", birthYear: 1974, nbClients: 20,
        nbTravelDays: 6, rate: 80, employeeVehicle: vt2)
    let Paul = Programmer(name: "Paul", birthYear: 1993, nbProjects: 3,
        rate: 75, employeeVehicle: m1)
    let Pierre = Tester(name: "Pierre", birthYear: 1987, nbBugs: 124,
        rate: 50, employeeVehicle: m2)
    let Matt = Programmer(name: "Matt", birthYear: 1981, nbProjects: 5,
        rate: 110, employeeVehicle: vt4)
    let Sarah = Programmer(name: "Sarah", birthYear: 1986, nbProjects: 3,
        employeeVehicle: vt3)

    let p1 = Permanent(nbChildren: 2, married: true, monthlySalary: 6000,
        bonusPerChildPerMonth: 200, accumulatedDays: 17)
    let p2 = Permanent(nbChildren: 3, married: false, monthlySalary: 5000,
        bonusPerChildPerMonth: 150, accumulatedDays: 19)
    let t1 = Temporary(hourlySalary: 60, accumulatedHours: 30)
    let t2 = Temporary(hourlySalary: 50, accumulatedHours: 60)
    let p3 = Permanent(nbChildren: 1, married: true, monthlySalary: 4000,
        bonusPerChildPerMonth: 100, accumulatedDays: 20)
    let p4 = Permanent(nbChildren: 4, married: true, monthlySalary: 4500,
        bonusPerChildPerMonth: 100, accumulatedDays: 19)
    Serge.signContract(contract: p1)
    Cindy.signContract(contract: p2)
    Paul.signContract(contract: t1)
    Matt.signContract(contract: t2)
    Pierre.signContract(contract: p3)
    Sarah.signContract(contract: p4)
    employees.append(Serge); employees.append(Cindy);
    employees.append(Paul); employees.append(Pierre);
    employees.append(Matt); employees.append(Sarah)
    for item in employees {
        print("-----")
        print(item)
        print("-----")
    }
    print("-----")
    print("Contracts: ")
}

```

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print("-----")
for item in employees {
    if let contract = item.contract {
        print(item.contractInfo(), contract)
    }
}
print("-----")
let p5 = Permanent(nbChildren: 1, married: true, monthlySalary: 5000,
    bonusPerChildPerMonth: 200, accumulatedDays: 30)
Matt.signContract(contract: p5)
print("-----")
print("Contracts: ")
print("-----")
for item in employees {
    if let contract = item.contract {
        print(item.contractInfo(), contract)
    }
}
print("-----")
}

}

```