

```
What you want to do?
1 Add Employee
2 Remove Employee
3 Add work start time
4 Add work end time
5 Add work progress
6 Print all employees in the system
0 Exit
: 1
Enter Name: Alex
Employee added with id: 1
```

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What you want to do?
1 Add Employee
2 Remove Employee
3 Add work start time
4 Add work end time
5 Add work progress
6 Print all employees in the system
0 Exit
: 1
Enter Name: Bob
Employee added with id: 2
```

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What you want to do?
1 Add Employee
2 Remove Employee
3 Add work start time
4 Add work end time
```

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What you want to do?
1 Add Employee
2 Remove Employee
3 Add work start time
4 Add work end time
5 Add work progress
6 Print all employees in the system
0 Exit
: 3
Enter id: 1
Enter Start Time: 12:06
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What you want to do?
1 Add Employee
2 Remove Employee
3 Add work start time
4 Add work end time
5 Add work progress
6 Print all employees in the system
0 Exit
: 6
Id: 1
Name: Alex
Alex not started work at 12:06
Alex not completed work yet.
Work Progress: 0

Id: 2
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: 6
Id: 1
Name: Alex
Alex not started work at 12:06
Alex not completed work yet.
Work Progress: 0

Id: 2
Name: Bob
Bob not started work yet.
Bob not completed work yet.
Work Progress: 0

Id: 3
Name: Natasha
Natasha not started work yet.
Natasha not completed work yet.
Work Progress: 0

What you want to do?
1 Add Employee
2 Remove Employee
3 Add work start time
4 Add work end time
5 Add work progress
6 Print all employees in the system
0 Exit
: 5
Enter id: 1
Add progress: 50

What you want to do?
1 Add Employee
2 Remove Employee
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3 Add work start time
4 Add work end time
5 Add work progress
6 Print all employees in the system
0 Exit
: 6
Id: 1
Name: Alex
Alex not started work at 12:06
Alex not completed work yet.
Work Progress: 50

Id: 2
Name: Bob
Bob not started work yet.
Bob not completed work yet.
Work Progress: 0

Id: 3
Name: Natasha
Natasha not started work yet.
Natasha not completed work yet.
Work Progress: 0

What you want to do?
1 Add Employee
2 Remove Employee
3 Add work start time
4 Add work end time
5 Add work progress
6 Print all employees in the system
0 Exit
: 0
Thank you!
PS D:\College-Stuff-6th-Sem\LPII>

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# Expert system - Employee information management
# functions:
# add employee
# remove employee
# work start time
# work end time
# update work progress
# get work progress

# employee class
class Employee:
    def __init__(self, id, name):
        self.id = id
        self.name = name
        self.inTime = "-1"
        self.outTime = "-1"
        self.workProgress = 0

    def printDetails(self):

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        print("Id: ", self.id)
        print("Name: ", self.name)
        if (self.inTime == "-1"):
            print(self.name+" not started work yet.")
        else:
            print(self.name+" not started work at " + self.inTime)
        if (self.outTime == "-1"):
            print(self.name+" not completed work yet.")
        else:
            print(self.name+" completed work at " + self.outTime)
        print("Work Progress: ", self.workProgress)

    def updateWorkProgress(self, addition):
        self.workProgress += addition
        self.workProgress = min(self.workProgress, 100)

    def updateInTime(self, inTime):
        self.inTime = inTime

    def updateOutTime(self, outTime):
        self.outTime = outTime

class EmployeeManagement:
    def __init__(self):
        self.employees = []
        self.employeesCnt = 0

    def addEmployee(self, name):
        self.employeesCnt += 1
        employee = Employee(self.employeesCnt, name)
        self.employees.append(employee)
        return self.employeesCnt

    def getEmployeeInd(self, id):
        for i in range(len(self.employees)):
            if (self.employees[i].id == id):
                return i
        return -1

    def removeEmployee(self, id):
        ind = self.getEmployeeInd(id)
        if (ind == -1):
            print("The employee with " + id + " does not exist")
            return
        self.employees.pop(ind)

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def addWorkProgress(self, id, amount):
    ind = self.getEmployeeInd(id)
    if (ind == -1):
        print("The employee with " + id + " does not exist")
        return
    self.employees[ind].updateWorkProgress(amount)

def startWork(self, id, startTime):
    ind = self.getEmployeeInd(id)
    if (ind == -1):
        print("The employee with " + id + " does not exist")
        return
    self.employees[ind].updateInTime(startTime)

def endWork(self, id, endTime):
    ind = self.getEmployeeInd(id)
    if (ind == -1):
        print("The employee with " + id + " does not exist")
        return
    self.employees[ind].updateInTime(endTime)

def printAllEmployees(self):
    for employee in self.employees:
        employee.printDetails()
        print()

def main():
    system = EmployeeManagement()
    while (1):
        print("\n\nWhat you want to do?")
        print("1 Add Employee")
        print("2 Remove Employee")
        print("3 Add work start time")
        print("4 Add work end time")
        print("5 Add work progress")
        print("6 Print all employees in the system")
        print("0 Exit")
        choice = int(input(": "))

        if (choice == 1):
            name = input("Enter Name: ")
            id = system.addEmployee(name)
            print("Employee added with id: ", id)
        elif (choice == 2):

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        name = input("Enter Name: ")
        system.removeEmployee(name)
    elif (choice == 3):
        id = int(input("Enter id: "))
        startTime = input("Enter Start Time: ")
        system.startWork(id, startTime)
    elif (choice == 4):
        id = int(input("Enter id: "))
        endTime = input("Enter End Time: ")
        system.startWork(id, endTime)
    elif (choice == 5):
        id = int(input("Enter id: "))
        progress = int(input("Add progress: "))
        system.addWorkProgress(id, progress)
    elif (choice == 6):
        system.printAllEmployees()
    else:
        print("Thank you!")
        break
```

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main()
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