Task 1:

Task 3:

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4. Display information for employees who works on projects.
5: Add a new department.
6: Add a new employee.
7: Add a new project.
8: Add a new works on record.
9. Save all data into files.
0. Exit.
Input a choice (0-9): 2
Admin Employee number: 600, Employee name: Willy, Date of birth: 01/01/1988, Address: 41 Station Street Wollongong NSW 2500, Gender:
M, Salary: 250.5, Supervisor number: 0, Department number: 9, Skills: Cook Read
Developer Employee number: 700, Employee name: Zhi, Date of birth: 12/09/1999, Address: 112 Smith Street Windang NSW 2525, Gender: M,
 Salary: 80.2, Supervisor number: 600, Department number: 9, Languages: C++ Java Python
Developer Employee number: 800, Employee name: Mary, Date of birth: 03/10/2000, Address: 26 Gibsons Road Figtree NSW 2525, Gender: F,
 Salary: 50.0, Supervisor number: 700, Department number: 9, Languages: Java Python SQL
Admin Employee number: 500, Employee name: Angelina, Date of birth: 20/11/1990, Address: 25 Bong Bong Road Horsley NSW 2530, Gender:
F, Salary: 250.0, Supervisor number: 0, Department number: 8, Skills: Read Write
Developer Employee number: 510, Employee name: Anna, Date of birth: 20/11/1990, Address: 200 Cemetary Road Hawea NSW 2800, Gender: F,
 Salary: 100.0, Supervisor number: 500, Department number: 8, Languages: Python SQL
Admin Employee number: 520, Employee name: Madelaine, Date of birth: 20/11/1990, Address: 23 Lake View Street Figtree NSW 2525, Gende
r: F, Salary: 50.0, Supervisor number: 510, Department number: 8, Skills: Write Communication
Admin Employee number: 530, Employee name: Robert, Date of birth: 20/11/1990, Address: 80 Penny Road Windang NSW 2520, Gender: M, Sal
ary: 50.0, Supervisor number: 510, Department number: 8, Skills: Management Travel
Developer Employee number: 540, Employee name: Claudio, Date of birth: 20/11/1990, Address: 23 Horsley Street Unanderra NSW 2528, Gen
der: M, Salary: 50.0, Supervisor number: 510, Department number: 8, Languages: Java C Python SQL
Developer Employee number: 350, Employee name: Brian, Date of birth: 13/05/1965, Address: 23 Station Street Wollongong NSW 2500, Gend
er: M, Salary: 200.4, Supervisor number: 0, Department number: 7, Languages: Shell Java Python
Developer Employee number: 110, Employee name: Alvin, Date of birth: 13/10/1977, Address: 56 Marlo Road Wollongong NSW 2500, Gender:
M, Salary: 156.4, Supervisor number: 100, Department number: 1, Languages: SQL Shell HTML
1. Display all departments.
2. Display all employees.
3. Display all projects.
4. Display information for employees who works on projects.
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3. Display all projects.
4. Display information for employees who works on projects.
5: Add a new department.
6: Add a new employee.
7: Add a new project.
8: Add a new works on record.
9. Save all data into files.
0. Exit.
Input a choice (0-9): 3
Project number: 1001, Project title: Computation, Sponsor: Microsoft, Department number: 8, Project budget: 25000.0
Project number: 1002, Project title: Study methods, Sponsor: Education committee, Department number: 3, Project budget: 15000.0
Project number: 1003, Project title: Racing car, Sponsor: Cloud Pty Ltd, Department number: 3, Project budget: 225000.0
Project number: 1004, Project title: Football, Sponsor: Football Club, Department number: 5, Project budget: 35000.0
Project number: 1005, Project title: Swimming, Sponsor: Education Committee, Department number: 5, Project budget: 125000.0
Project number: 1006, Project title: Database, Sponsor: Database Committee, Department number: 5, Project budget: 125000.0
1. Display all departments.
2. Display all employees.
3. Display all projects.
4. Display information for employees who works on projects.
5: Add a new department.
6: Add a new employee.
7: Add a new project.
8: Add a new works on record.
9. Save all data into files.
0. Exit.
Input a choice (0-9): 4
Project number: 1001, Project title: Computation, Sponsor: Microsoft, Department number: 8, Project budget: 25000.0
Developer Employee number: 800, Employee name: Mary, Date of birth: 03/10/2000, Address: 26 Gibsons Road Figtree NSW 2525, Gender: F,
 Salary: 50.0, Supervisor number: 700, Department number: 9, Languages: Java Python SQL
 Hours: 10

Project number: 1001, Project title: Computation, Sponsor: Microsoft, Department number: 8, Project budget: 25000.0
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Project number: 1001, Project title: Computation, Sponsor: Microsoft, Department number: 8, Project budget: 25000.0
Developer Employee number: 510, Employee name: Anna, Date of birth: 20/11/1990, Address: 200 Cemetary Road Hawea NSW 2800, Gender: F,
 Salary: 100.0, Supervisor number: 500, Department number: 8, Languages: Python SQL
 Hours: 15

Project number: 1002, Project title: Study methods, Sponsor: Education committee, Department number: 3, Project budget: 15000.0
Developer Employee number: 700, Employee name: Zhi, Date of birth: 12/09/1999, Address: 112 Smith Street Windang NSW 2525, Gender: M,
 Salary: 80.2, Supervisor number: 600, Department number: 9, Languages: C++ Java Python
 Hours: 20

Project number: 1003, Project title: Racing car, Sponsor: Cloud Pty Ltd, Department number: 3, Project budget: 225000.0
Developer Employee number: 800, Employee name: Mary, Date of birth: 03/10/2000, Address: 26 Gibsons Road Figtree NSW 2525, Gender: F,
 Salary: 50.0, Supervisor number: 700, Department number: 9, Languages: Java Python SQL
 Hours: 15

Project number: 1003, Project title: Racing car, Sponsor: Cloud Pty Ltd, Department number: 3, Project budget: 225000.0
Developer Employee number: 540, Employee name: Claudio, Date of birth: 20/11/1990, Address: 23 Horsley Street Unanderra NSW 2528, Gen
der: M, Salary: 50.0, Supervisor number: 510, Department number: 8, Languages: Java C Python SQL
 Hours: 10

Project number: 1004, Project title: Football, Sponsor: Football Club, Department number: 5, Project budget: 35000.0
Developer Employee number: 350, Employee name: Brian, Date of birth: 13/05/1965, Address: 23 Station Street Wollongong NSW 2500, Gend
er: M, Salary: 200.4, Supervisor number: 0, Department number: 7, Languages: Shell Java Python
 Hours: 10

Project number: 1005, Project title: Swimming, Sponsor: Education Committee, Department number: 5, Project budget: 125000.0
Developer Employee number: 350, Employee name: Brian, Date of birth: 13/05/1965, Address: 23 Station Street Wollongong NSW 2500, Gend
er: M, Salary: 200.4, Supervisor number: 0, Department number: 7, Languages: Shell Java Python
 Hours: 10

1. Display all departments.
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1. Display all departments.
2. Display all employees.
3. Display all projects.
4. Display information for employees who works on projects.
5: Add a new department.
6: Add a new employee.
7: Add a new project.
8: Add a new works on record.
9. Save all data into files.
0. Exit.
Input a choice (0-9): 5
Department number: 3
The department 3 exists.
1. Display all departments.
2. Display all employees.
3. Display all projects.
4. Display information for employees who works on projects.
5: Add a new department.
6: Add a new employee.
7: Add a new project.
8: Add a new works on record.
9. Save all data into files.
0. Exit.
Input a choice (0-9): 5
Department number: 10
Department name: Database system
Manager number: 520
Budget: 15000.5
Start date: 10/01/2020
1. Display all departments.
2. Display all employees.
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Budget: 15000.5
Start date: 10/01/2020
1. Display all departments.
2. Display all employees.
3. Display all projects.
4. Display information for employees who works on projects.
5: Add a new department.
6: Add a new employee.
7: Add a new project.
8: Add a new works on record.
9. Save all data into files.
0. Exit.
Input a choice (0-9): 6
Employee number: 110
The employee 110 exists.
1. Display all departments.
2. Display all employees.
3. Display all projects.
4. Display information for employees who works on projects.
5: Add a new department.
6: Add a new employee.
7: Add a new project.
8: Add a new works on record.
9. Save all data into files.
0. Exit.
Input a choice (0-9): 6
Employee number: 120
Employee name: Alice Smith
Date of birth (dd/mm/yyyy): 10/02/2000
Address: 1 Northfields ave Wollongong NSW 2500
Gender: F
Salary: 520.3
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Gender: F
Salary: 520.3
Supervisor number: 110
Department number: 3
Admin or Developer(A or D)?: D
Languages: C++ Java SQL Lisp
1. Display all departments.
2. Display all employees.
3. Display all projects.
4. Display information for employees who works on projects.
5: Add a new department.
6: Add a new employee.
7: Add a new project.
8: Add a new works on record.
9. Save all data into files.
0. Exit.
Input a choice (0-9): 7
Project number: 1003
The project 1003 exists.
1. Display all departments.
2. Display all employees.
3. Display all projects.
4. Display information for employees who works on projects.
5: Add a new department.
6: Add a new employee.
7: Add a new project.
8: Add a new works on record.
9. Save all data into files.
0. Exit.
Input a choice (0-9): 7
Project number: 1008
Project title: Database management
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Input a choice (0-9): 7
Project number: 1008
Project title: Database management
Sponsor: Oracle Pty Ltd
Department number: 9
Budget: 100000.0
1. Display all departments.
2. Display all employees.
3. Display all projects.
4. Display information for employees who works on projects.
5: Add a new department.
6: Add a new employee.
7: Add a new project.
8: Add a new works on record.
9. Save all data into files.
0. Exit.
Input a choice (0-9): 8
Employee number: 100
The employee 100 does not exist.
1. Display all departments.
2. Display all employees.
3. Display all projects.
4. Display information for employees who works on projects.
5: Add a new department.
6: Add a new employee.
7: Add a new project.
8: Add a new works on record.
9. Save all data into files.
0. Exit.
Input a choice (0-9): 8
Employee number: 120
Project number: 1004
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0. Exit.
Input a choice (0-9): 8
Employee number: 120
Project number: 1004
Input total hours: 20
1. Display all departments.
2. Display all employees.
3. Display all projects.
4. Display information for employees who works on projects.
5: Add a new department.
6: Add a new employee.
7: Add a new project.
8: Add a new works on record.
9. Save all data into files.
0. Exit.
Input a choice (0-9): 8
Employee number: 540
Project number: 1003
The employee 540 has already been allocated to the project 1003
1. Display all departments.
2. Display all employees.
3. Display all projects.
4. Display information for employees who works on projects.
5: Add a new department.
6: Add a new employee.
7: Add a new project.
8: Add a new works on record.
9. Save all data into files.
0. Exit.
Input a choice (0-9): 9
Data saved.
1. Display all departments.
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```
9. Save all data into files.
0. Exit.
Input a choice (0-9): 8
Employee number: 540
Project number: 1003
The employee 540 has already been allocated to the project 1003
1. Display all departments.
2. Display all employees.
3. Display all projects.
4. Display information for employees who works on projects.
5: Add a new department.
6: Add a new employee.
7: Add a new project.
8: Add a new works on record.
9. Save all data into files.
0. Exit.
Input a choice (0-9): 9
Data saved.
1. Display all departments.
2. Display all employees.
3. Display all projects.
4. Display information for employees who works on projects.
5: Add a new department.
6: Add a new employee.
7: Add a new project.
8: Add a new works on record.
9. Save all data into files.
0. Exit.
Input a choice (0-9): 0
Bye-bye
C:\Users\qbinh\OneDrive\Tài liệu\128\Lab CSIT121\ASM CSIT121\ASM2>
```