

## Sri Lanka Institute of Information Technology



Topic : Identity Issuing Service

Group no : MLB\_08.02\_10

Campus : Malabe

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We declare that this is our own work, and this Assignment does not incorporate without acknowledgment any material previously submitted by anyone else in SLIIT or any other university/Institute. And we declare that each one of us equally contributed to the completion of this Assignment.

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**Exercise 1:****1) System requirements for identity issuing service**

1. As a new employee, I'd like to quickly register on the website by entering my email address and password.
2. As a new employee, I want to find any paysheets for month, holidays, and Factory Identity Card
3. As a new employee, I want ordering Factory Identity Card
4. Employee can be managed and edit their profile
5. An Order, order details are stored in the database
6. As an Admin can Logging to the database and access new employee applications
7. Admin can Check new employee application
8. Admin also reply to the feedback and can be enter new details to the database
9. As an Admin can give an approved for the Completed applications
10. ID issuing manager can check the old or new id details in the database
11. ID issuing manager can Remove or add employee id details to the database
12. A manager can check applicant data and manage the order
13. A manager can manage the new employee
14. A manager can validate factory identity card for new employee
15. Id issuing sector can confirm ID Card application orders for a new employee
16. Id issuing sector can issue the id card to the valid new employee
17. A feedback comments stored to the data base

**2) Noun & Verb Analysis**

- **Nouns**
- **Verbs**

1. As a **new employee**, I'd like to quickly **register** on the **website** by **entering** my email address and password.
2. As a **new employee**, I want to **find** any paysheets for month, holidays, and **ID Card**
3. As a **new employee**, I want **ordering ID Card**
4. **Employee** can be **managed** and **edit** their profile
5. An **Order**, order details are **stored** in the **database**
6. As an **Admin** can **Logging** to the **database** and **access new employee** applications
7. **Admin** can **Check** new **employee** application
8. **Admin** also **reply** to the **feedback** and can be **enter** new details to the **database**
9. As an **Admin** can **give** an **approved** for the Completed applications
10. **ID issuing manager** can **check** the old or new id details in the **database**
11. **ID issuing manager** can **Remove** or **add employee** id details to the **database**
12. A **manager** can **check** applicant data and **manage** the **order**
13. A **manager** can **manage** the **new employee**
14. A **manager** can **validate ID card** for **new employee**
15. **Id issuing sector** can **confirm ID Card** application **orders** for a **new employee**
16. **Id issuing sector** can **issue** the **ID card** to the valid **new employee**
17. A **feedback** comments **stored** to the **data base**

**IT1050 – Object Oriented Concepts****Year 1 Semester II - 2022****3) Identified classes using Noun Analysis,**

- New Employee – Class
- Order - Class
- Admin - Class
- Manager - Class
- ID issuing sector - Class
- ID Card – Class
- Email –Attribute
- Password – Attribute
- Feedback – Redundant
- Employee – Class
- Data Base – Redundant

**CRC Cards**

<b>New Employee</b>	
<b>Responsibilities</b>	<b>Collaboration</b>
Quickly register on the website	
Ordering ID Card	Order

<b>Order</b>	
<b>Responsibilities</b>	<b>Collaboration</b>
Order details are stored in the database	

<b>Admin</b>	
<b>Responsibilities</b>	<b>Collaboration</b>
Check new employee application	New Employee
Reply to the feedback	Feedback
Enter new details to the database	

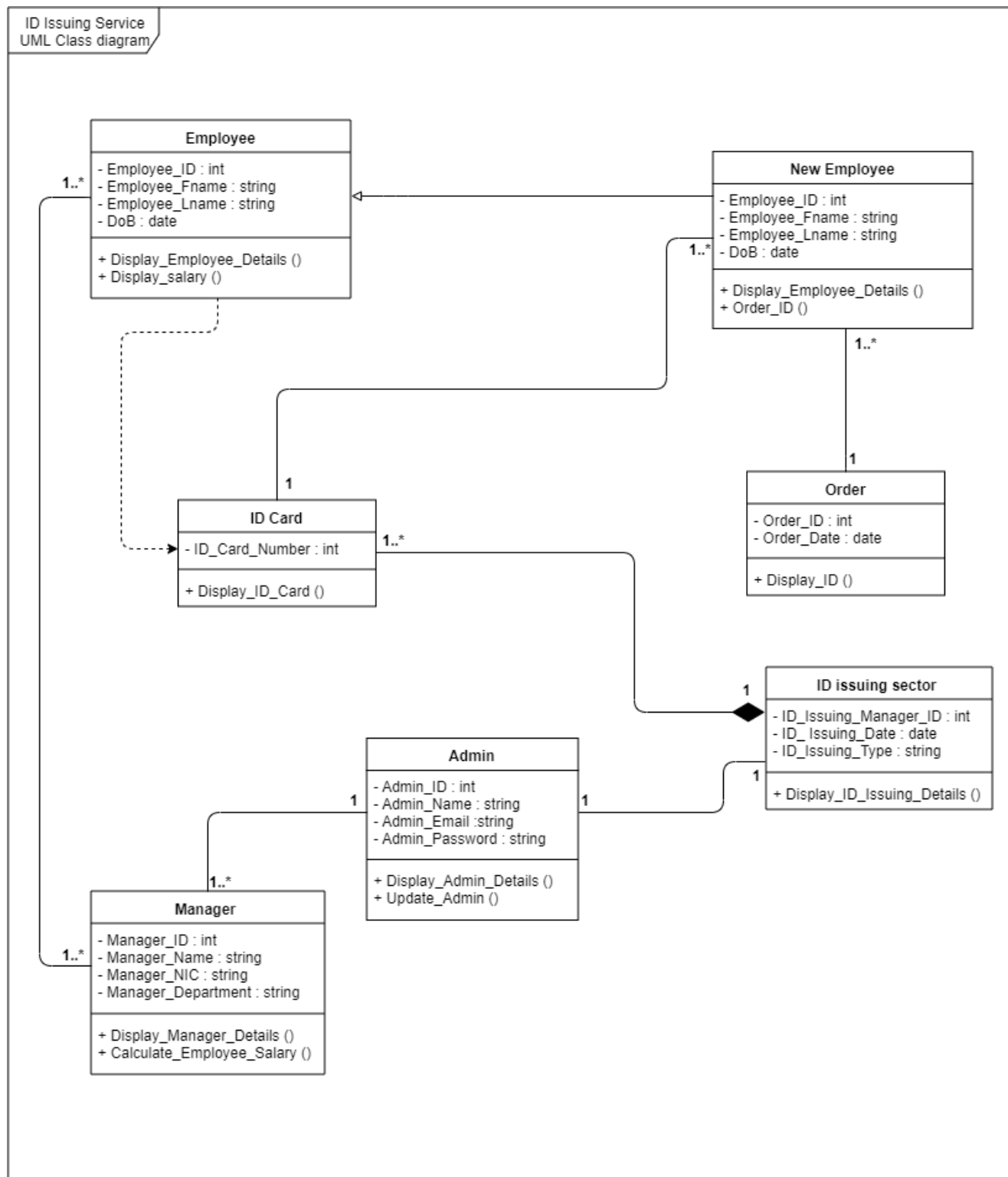
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<b>Manager</b>	
<b>Responsibilities</b>	<b>Collaboration</b>
Check applicant data and manage the order	
Manage the new employee	New Employee
Validate ID card for new employee	ID Card

<b>ID Issuing Sector</b>	
<b>Responsibilities</b>	<b>Collaboration</b>
Confirm ID Card application orders	
Issue the ID card to the valid new employee	ID Card

<b>ID Card</b>	
<b>Responsibilities</b>	<b>Collaboration</b>
Keep the ID card details and requirement	
Keep ID issuing sector details	ID Issuing sector

UML Class Diagram



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## Exercise 2 - Coding for the classes

*Admin.cpp*

```
#include <iostream>
#include "admin.h"

admin::admin()
{
    cout << "Admin Details :- "<<endl;
}

admin::admin(int id, string name, string email, string pwd)
{
    Admin_id = id;
    Admin_name = name;
    Email = email;
    Password = pwd;
}

void admin::Display_Admin_Details()
{
    cout << "Admin Id :- "<< Admin_id << endl;
    cout << "Admin name :- "<< Admin_name << endl;
    cout << "Email :- "<< Email << endl;
    cout << "Enter Password :- "<< Password << endl;
}

void admin::update_admin()
{
}
```

*Admin.h*

```
#include<iostream>
#include<string>
using namespace std;
class admin
{
private:
    int Admin_id;
    string Admin_name;
    string Email;
    string Password;
public:
    admin();
    admin(int id, string name, string email, string pwd);
    void Display_Admin_Details();
    void update_admin();
};
```



**IT1050 – Object Oriented Concepts****Year 1 Semester II - 2022*****Employee.cpp***

```
#include <iostream>
#include "employee.h"
using namespace std;

employee::employee()
{
    cout << "Employee Details :- " << endl;
}

employee::employee(int id, string fname, string lname, string dob)
{
    Employee_ID = id;
    Employee_Fname = fname;
    Employee_Lname = lname;
    Dob = dob;
}

void employee::Display_Employee_Details()
{
    cout << "Employee_ID :- " << Employee_ID << endl;
    cout << "Employee_Fname :- " << Employee_Fname << endl;
    cout << "Employee_Lname :- " << Employee_Lname << endl;
    cout << "Dob :- " << Dob << endl;
}

void employee::Display_salary()
{
}
```

***Employee.h***

```
#include<iostream>
#include<string>
#include<ctime>
using namespace std;

class employee
{
private:
    int Employee_ID;
    string Employee_Fname;
    string Employee_Lname;
    string Dob;

public:
    employee();
    employee(int id, string fname, string lname, string dob);
    void Display_Employee_Details();
    void Display_salary();
};
```

**IT1050 – Object Oriented Concepts****Year 1 Semester II - 2022*****ID Card.cpp***

```
#include "id_card.h"
#include "id_issuing_sector.h"

id_card::id_card()
{
    cout << "ID Card Details :- "<< endl;
}

id_card::id_card(int idnumber)
{
    ID_card_Number = idnumber;
}

void id_card::Display_Id_Card()
{
}
```

***ID Card.h***

```
#include <iostream>
#include <string>
using namespace std;
class id_card
{
private:
    int ID_card_Number;

public:
    id_card();
    id_card(int idnumber);
    void Display_Id_Card();
};
```

**IT1050 – Object Oriented Concepts****Year 1 Semester II - 2022*****ID Issuing Sector.cpp***

```
#include <iostream>
#include <string>
#include "id_issuing_sector.h"
#include "id_card.h"
using namespace std;

id_issuing_sector::id_issuing_sector()
{
    cout << "Id_issuing_sector Details :- " << endl;
}

id_issuing_sector::id_issuing_sector(int id, int idate, string itype)
{
    Id_Issuing_Manager_id = id;
    Id_Issuing_date = idate;
    Id_issuing_Type = itype;
}

void id_issuing_sector::display_ID_Issuing_Details()
{
}
```

***ID Issuing Sector.h***

```
#include <iostream>
#include <string>

using namespace std;
class id_issuing_sector
{
private:
    int Id_Issuing_Manager_id;
    int Id_Issuing_date;
    string Id_issuing_Type;

public:
    id_issuing_sector();
    id_issuing_sector(int id, int idate, string itype);
    void display_ID_Issuing_Details();
};
```

**IT1050 – Object Oriented Concepts****Year 1 Semester II - 2022*****Manager.cpp***

```
#include <iostream>
#include "manager.h"

manager::manager()
{
    cout << "Manager Details :- " << endl;
}

manager::manager(int mid, string mname, string mnic, string mdep)
{
    Manager_ID = mid;
    Manager_Name = mname;
    Manager_Nic = mnic;
    Manager_Department = mdep;
}

void manager::Display_Manager_Details()
{
    cout << "Manager_ID :- " << Manager_ID << endl;
    cout << "Manager_Name :- " << Manager_Name << endl;
    cout << "Manager_Nic :- " << Manager_Nic << endl;
    cout << "Manager_Department :- " << Manager_Department << endl;
}

float manager::Calculate_Salary()
{
    int salary = Basic_salary + bonus;
    return salary;
}
```

***Manager.h***

```
#include<iostream>
#include<string>
using namespace std;
class manager
{
private:
    int Manager_ID;
    string Manager_Name;
    string Manager_Nic;
    string Manager_Department;
    int Basic_salary;
    int bonus;
public:
    manager();
    manager(int mid, string mname, string mnic, string mdep);
    void Display_Manager_Details();
    float Calculate_Salary();
};
```

**IT1050 – Object Oriented Concepts****Year 1 Semester II - 2022***New Employee.cpp*

```
#include<iostream>
#include<string>
#include "new_employee.h"
using namespace std;

new_employee::new_employee()
{
    cout << "New_employee Details :- " << endl;
}

new_employee::new_employee(int eid, string efname, string elname, string dob)
{
    Employee_ID = eid;
    Employee_Fname = efname;
    Empolyee_Lname = elname;
    Dob = dob;
}

void new_employee::Display_Employee_Details()
{
    cout << "New Employee_ID :- " << Employee_ID << endl;
    cout << "New Employee_Fname :- " << Employee_Fname << endl;
    cout << "New Employee_Lname :- " << Empolyee_Lname << endl;
    cout << "New Employee Dob :- " << Dob << endl;
}

void new_employee::Order_ID(int oid)
{
    order_ID = oid;
}
```

*New Employee.h*

```
#include<iostream>
#include<string>
using namespace std;
class new_employee
{
private:
    int Employee_ID;
    string Employee_Fname;
    string Empolyee_Lname;
    string Dob;
    int order_ID;
public:
    new_employee();
    new_employee(int eid, string efname, string elname, string dob);
    void Display_Employee_Details();
    void Order_ID(int oid);
};
```

**IT1050 – Object Oriented Concepts****Year 1 Semester II - 2022*****Order.cpp***

```
#include <iostream>
#include <cstring>
#include "order.h"
using namespace std;

order::order()
{
    cout << "Order Details :- " << endl;
}

order::order(int eid, int id, string date)
{
    Employee_ID = eid;
    order_ID = id;
    order_Date = date;
}

void order::Display_Order_Details()
{
    cout << "Employee_ID :- " << Employee_ID << endl;
    cout << "Order_Id :- " << order_ID << endl;
    cout << "Order_Date :- " << order_Date << endl;
}

void order::Display_ID()
{
}
```

***Order.h***

```
#include<iostream>
#include<string>
using namespace std;
class order
{
private:
    int Employee_ID;
    int order_ID;
    string order_Date;

public:
    order();
    order(int eid, int id, string date);
    void Display_Order_Details();
    void Display_ID();
};
```

**IT1050 – Object Oriented Concepts****Year 1 Semester II - 2022*****Main.cpp***

```
#include "admin.h"
#include "employee.h"
#include "id_card.h"
#include "id_issuing_sector.h"
#include "manager.h"
#include "new_employee.h"
#include "order.h"

#include <iostream>
#include <string>
using namespace std;

int main() {

    admin* ad1, * ad2;
    ad1 = new admin(02515, "namal", "abc@gmail.com", "kdana");
    ad2 = new admin;
    ad1-> Display_Admin_Details();

    cout << "....." << endl;

    employee* emp1, * emp2;
    emp1 = new employee(02515, "namal", "kumara", "1999-05-25");
    emp2 = new employee;
    emp1->Display_Employee_Details();

    cout << "....." << endl;

    id_card id;
    emp1->Display_Employee_Details();
    cout << "....." << endl;

    id_issuing_sector *iss,*id1;
    iss->display_ID_Issuing_Details();

    cout << "....." << endl;
    manager *mng,*mng1;
    mng->Calculate_Salary();
    cout << "....." << endl;

    new_employee *nemp1,*nemp2;
    nemp1 = new new_employee(02515, "namal", "kumara", "1999-05-25");
    nemp2 = new new_employee;
    nemp1->Display_Employee_Details();

    cout << "....." << endl;
    manager *mn1,*mn2;
    mn1 = new manager(01235, "Hasitha", "125468975", "id_issuing");
    mn2 = new manager;
    mn1->Display_Manager_Details();

    cout << "....." << endl;
    cout << "....." << endl;
```

**IT1050 – Object Oriented Concepts****Year 1 Semester II - 2022**

```
order *od, *od1;  
od -> Display_Order_Details();  
  
}
```