|  |
| --- |
| Name: S.O. Perera |
| Student Reference Number: |



|  |  |  |
| --- | --- | --- |
| Module Code: ISAD253SL | Module Name: Databases | |
| Coursework Title: | | |
| Deadline Date:  04/01/2021 | | Member of staff responsible for coursework: Naji Saravanabavan |
| Programme: | | |
| Please note that University Academic Regulations are available under Rules and Regulations on the University website [www.plymouth.ac.uk/studenthandbook](http://www.plymouth.ac.uk/studenthandbook). | | |
| Group work: please list all names of all participants formally associated with this work and state whether the work was undertaken alone or as part of a team. Please note you may be required to identify individual responsibility for component parts.  J A Mujeeb - 10707284  G M D D Rathnayakem - 10707351  S S N S Nevins - 10707291  S O Perera - 10707  Nethma - 10707  ***We confirm that we have read and understood the Plymouth University regulations relating to Assessment Offences and that we are aware of the possible penalties for any breach of these regulations. We confirm that this is the independent work of the group.***  Signed on behalf of the group: | | |
| Individual assignment: ***I confirm that I have read and understood the Plymouth University regulations relating to Assessment Offences and that I am aware of the possible penalties for any breach of these regulations. I confirm that this is my own independent work.***  Signed: | | |
| Use of translation software: failure to declare that translation software or a similar writing aid has been used will be treated as an assessment offence.  I \*have used/not used translation software.  If used, please state name of software………………………………………………………………… | | |
| **Overall mark \_\_\_\_\_% Assessors Initials \_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_** | | |

\*Please delete as appropriateSci/ps/d:/students/cwkfrontcover/2013/14

Table of Contents

[Section 01 4](#_Toc60576137)

[Basic Introduction 4](#_Toc60576138)

[EER diagram 4](#_Toc60576139)

[Relational Mapping 5](#_Toc60576140)

[Normalization 6](#_Toc60576141)

[Data Dictionary 6](#_Toc60576142)

[Section 02 6](#_Toc60576143)

[Creating Table 6](#_Toc60576144)

[Database Diagram 6](#_Toc60576145)

[Screenshots showing all the tables 7](#_Toc60576146)

[Section 03 7](#_Toc60576147)

[Trigger 7](#_Toc60576148)

[Function 7](#_Toc60576149)

[View 7](#_Toc60576150)

[Procedure 7](#_Toc60576151)

[Section 04 7](#_Toc60576152)

[Worthy features 7](#_Toc60576153)

[Together with any shortcomings 7](#_Toc60576154)

[How they might be resolved 7](#_Toc60576155)

[Screenshots of everything remaining 7](#_Toc60576156)

# Section 01

## Basic Introduction

In our Library Service System there is one main library which contains four different branches based on the popularity of the books available; they are Academic Library, Public Library, School Library and Special Library. In the main library it is allowed to register any member but in the branch libraries registration is done according to the age limit and the occupation of the members.

Members are under five categories named Pre-school children, students, undergraduate, postgraduate and others.

There are mainly nine positions in our Library Service System who employees; they are Librarian, Director, Medical Librarian, Media Specialist, Clerk, Assistant, Library Aide and Archivist. For Employee entity there is a multi-valued attribute named qualification. We record the publisher details as well for each book.

Whenever a member borrows a book, we record the issue-date, due-date and the return-date.

## EER diagram

Diagram

Description automatically generated

Figure 1

Assumptions:

* This library service system has generalized into four branch libraries named as Academic, Public, School and Special.
* ISBN\_no in the copy entity is the Foreign Key of the copy entity.
* Pub\_ID in the book entity is the Foreign Key of the book entity.
* Qualification attribute under employee entity is a multi-valued attribute. Employees have been generalized into nine positions.
* Location attribute under Library entity is a multi-valued attribute.
* Members have been generalized into four categories named as student, undergraduate, postgraduate and others. As a library service system this is very easy for us to provide what each member needs.

## **Relational Mapping**

Diagram

Description automatically generated

Figure 2

## Normalization

Figure 3

**Data Dictionary**

Library

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| P/F | Field Name | Description | Data Type | Field Size |
| P | L\_no | Each library has a unique number  E.g. Main Library = 01 | Integer | 2 |
|  | Name | Name of each library | Text | 15 |
|  | Location | Location of each library and it is multi-valued attribute | Text | 20 |

# Section 02

## Creating Table

## Database Diagram

Diagram

Description automatically generated

## Screenshots showing all the tables

# Section 03

## Trigger

## Function

## View

## Procedure

# Section 04

## Worthy features

## Together with any shortcomings

## How they might be resolved

## Screenshots of everything remaining