SAMPLE A :

UNF:
CATALOGUE(catal_ddcno,catal_titile,(author_id,author_firstname,author_lastname),(subject_id,subject_desc),catal_descrip,publisher_id,publisher_name,published_date,catal_edition,catal_page_count,catal_language,catal_note,(isbn_no,isbn_booktype))

1NF:
CATALOGUE(<u>catal_ddcno</u>,catal_titile,catal_descrip,publisher_id,publisher_name,published_date,catal_edition,catal_page_count,catal_language,catal_note)
CK:
   1. catal_ddcno

CATALAUTHOR(<u>author_id</u>,<u>catal_ddcno</u>,author_firstname,author_lastname)
CK:
   1. author_id, catal_ddcno

CATALSUBJECT(<u>catal_ddcno</u>,<u>subject_id</u>,subject_desc)
CK:
   1. subject_id,catal_ddcno

ISBN(<u>isbn_no</u>,isbn_booktype,catal_ddcno)
CK:
   1. Isbn_no
   2. isbn_booktype,catal_ddcno

Partial Dependencies:
   1. author_id -> author_firstname,author_lastname
   2. subject_id ->subject_desc

2NF:
CATALOGUE(catal_ddcno,catal_titile,catal_descrip,publisher_id,publisher_name,published_date,catal_edition,catal_page_count,catal_language,catal_note)

CATALAUTHOR(author_id,catal_ddcno)

AUTHOR(author_id,author_firstname,author_lastname)

CATALSUBJECT(catal_ddcno,subject_id)

SUBJECT(subject_id,subject_desc)

ISBN(isbn_no,isbn_booktype,catal_ddcno)

Transitive Dependencies :
   1. publisher_id -> publisher_name

3NF:

CATALOGUE(catal_ddcno,catal_titile,catal_descrip,publisher_id,published_date,catal_edition,catal_page_count,catal_language,catal_note)

PUBLISHER(publisher_id,publisher_name)

CATALAUTHOR(author_id,catal_ddcno)

AUTHOR(author_id,author_firstname,author_lastname)

CATALSUBJECT(catal_ddcno,subject_id)

SUBJECT(subject_id,subject_desc)

ISBN(isbn_no,isbn_booktype,catal_ddcno)

Full Dependencies :

1. catal_ddcno->catal_titile,catal_descrip,publisher_id,published_date,catal_edition,catal_page_count,catal_language,catal_note

2. publisher_id ->publisher_name

3. author_id -> author_firstname,author_lastname

4. subject_id ->subject_desc

5. isbn_no -> isbn_booktype,catal_ddcno

SAMPLE B :

UNF:
BORROWER(borrower_no,borrower_first_name,borrower_last_name,borrower_class,borrower_borrowing_status,(branch_code,book_copy_id,branch_name,loan_start_datetime,loan_due_date,loan_returned_date_and_time,loan_fine_amount,loan_date_finepaid))

1NF:

BORROWER(borrower_no,borrower_first_name,borrower_last_name,borrower_class,borrower_borrowing_status)

CK:
   1. borrower_no

LOAN(branch_code,book_copy_id,loan_start_datetime,borrower_no,branch_name,loan_due_date,loan_returned_date_and_time,loan_fine_amount,loan_date_finepaid)

CK's :
   1. branch_code,book_copy_id,loan_start_datetime

Partial Dependencies:
   1. branch_code -> branch_name

2NF:
BORROWER(borrower_no,borrower_first_name,borrower_last_name,borrower_class,borrower_borrowing_status)

LOAN(branch_code,book_copy_id,loan_start_datetime,borrower_no,loan_due_date,loan_returned_date_and_time,loan_fine_amount,loan_date_finepaid)
BRANCH(branch_code,branch_name)

Transitive Dependencies :
No transitive dependencies present

3NF:
BORROWER(borrower_no,borrower_first_name,borrower_last_name,borrower_class,borrower_borrowing_status)

LOAN(branch_code,book_copy_id,loan_start_datetime,borrower_no,loan_due_date,loan_returned_date_and_time,loan_fine_amount,loan_date_finepaid)

BRANCH(branch_code,branch_name)

Full Dependencies :

1. borrower_no->borrower_first_name,borrower_last_name,borrower_class,borrower_borrowing_status
2. branch_code,book_copy_id,loan_start_datetime->borrower_no,loan_due_date,loan_returned_date_and_time,loan_fine_amount,loan_date_finepaid
3. branch_code ->branch_name

COLLECTED 3NF RELATIONS :
1. CATALOGUE(catal_ddcno,catal_titile,publisher_id,published_date,catal_edition,catal_page_count,catal_language,catal_note)

2. PUBLISHER(publisher_id,publisher_name)

3. CATALAUTHOR(author_id,catal_ddcno)

4. AUTHOR(author_id,author_firstname,author_lastname)

5. CATALSUBJECT(catal_ddcno,subject_id)

6. SUBJECT(subject_id,subject_desc)

7. ISBN(isbn_no,isbn_booktype,catal_ddcno)

8. BORROWER(borrower_no,borrower_first_name,borrower_last_name ,borrower_class,borrower_borrowing_status)

9. LOAN(branch_code,book_copy_id,loan_start_datetime,borrower_no,loan_due_date,loan_returned_date_and_time,loan_fine_amount,loan_date_finepaid)

10.   BRANCH(branch_code,branch_name)

Attribute synthesis :
No attribute synthesis present

FINAL 3NF RELATIONS :

CATALOGUE(catal_ddcno,catal_titile,catal_descrip,publisher_id,published_date,catal_edition,catal_page_count,catal_language,catal_note)

PUBLISHER(publisher_id,publisher_name)

CATALAUTHOR(author_id,catal_ddcno)

AUTHOR(author_id,author_firstname,author_lastname)

CATALSUBJECT(catal_ddcno,subject_id)

SUBJECT(subject_id,subject_desc)

ISBN(isbn_no,isbn_booktype,catal_ddcno)

BORROWER(borrower_no,borrower_first_name,borrower_last_name,borrower_class,borrower_borrowing_status)

LOAN(branch_code,book_copy_id,loan_start_datetime,borrower_no,loan_due_date,loan_returned_date_and_time,loan_fine_amount,loan_date_finepaid)

BRANCH(branch_code,branch_name)