**CRM Assignment**

**Library Management System**

In this assignment we want you to develop an application using Dynamics CRM which will be used by librarians for:

checking-out books from a library and then checking-in them back. The application specifications are below:

**1. Power Platform Pipeline:**

Set up a host environment for the Power Platform Pipelines and create a Dev to Test Deployment Pipeline.

**Solution.** Create a separate solution and include all custom components having prefix, should begin with first two letters of your first name and first two letters of your last name. E.g., If your name is Komal Ridda, your prefix should be ‘kori’.

**2. Model Driven App.** Create a model driven app Library Management System.

**3. Book entity.** We expect you to define a book entity in the system. The entity should have the following attributes:

*a. Book title (Single Line of Text)*

*b. ISBN (Single Line of Text)*

*c. Publish year (Single Line of Text)*

*d. Check in / check out status (Two Options)*

*e. Check-out date (Date Time Field)*

*f. Check-out contact (Lookup)*

*g. Planned check-in date (Date Time Field)*

*h. Cover price (Decimal)*

*i. Book category: Drop down of the following (literature, art, science, textbook, engineering)*

**4. Student Entity (Use OOB contact entity):** student can borrow multiple books (1:M relationship, use Subgrid)

**5.Duplicate detection.** Define duplicate detection rule so that the same book should not be entered into the system twice. You can use ISBN number for this.

**6. Workflows**:

1. Develop a workflow that sends an e-mail to the student of the borrowed book.

2. Create a workflow that assigns a task to the admin and sets its due date to match the planned check-out date.

**7. Business Process Flow:** Create a business process flow for the book entity with two stages: check-in and check-out.

**8. Security Roles:** Define the following security roles in the system: Librarian, Supervisor.

**9. Reporting**. Develop a report using reporting wizard showing all the books that are overdue and not returned yet. (Checkout date of the future). In the report, indicate which contact has the book with the e-mail and phone details visible in the report.

**10. Develop a Business Rule** for the checkout date and automatically set the planned check in date

to 10 days after the checkout date selected.

**11. Apply field validations /Business rules** which you think needed applicable on planned check-out date field. (For example, checkout date cannot be of the past)

**12. Dashboard** Create a chart and a dashboard and display them on a site menu to show the total number of books that are checked out.

**Instructions**

*1. You have a week to complete this test*

*2. After completing the assignment we kindly request you to send us back the following:*

*a. Book entity, Student entity main form screenshot*

*b. Screenshots of access settings of security roles of Librarian, Supervisor*

*c. Screenshot of the “check-in workflow”*

*d. Screenshot of duplicate detection rule definition on the book entity*

*e. Screenshot of your report*

*f. Screenshot of the Business Rule you developed for calculating the planned check-in date*