0.1 Development Model

In the development process of the system, the developers will utilize the Rapid Application Development (RAD) model as a project management strategy. This methodology is characterized by an iterative approach in the software development process, which begins with the specification of requirements from the users and proceeds through rapid prototyping iterative delivery, and continual maintenance for the currently completed software. This methodology is well-suited for the study as it provides researchers a clear overview to follow from the beginning to the end, making it easier to track each step's progress as well as make sure everything went according to the plan. Moreover, the RAD model is perfect to use for projects with expedited schedules and evolving requirements as it lays a strong emphasis on speed, adaptability, and user-centric design.
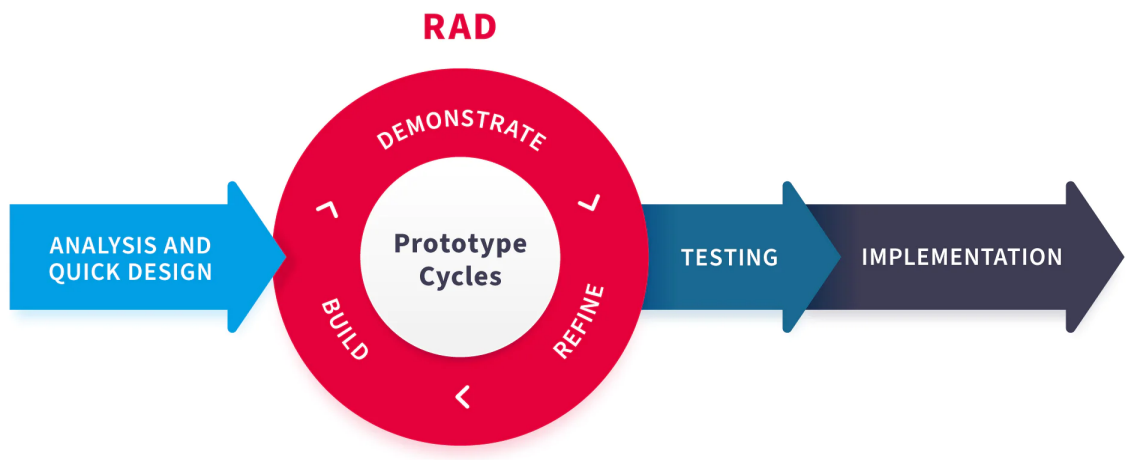

Figure 0.1: Rapid Application Development (RAD) Model.

0.2 Swim-lane Diagram

The Swim-lane diagram illustrates the process flow of the HRIS. The process begins when the user enters their login credentials. These credentials are unique to each University faculty employee, distinguishing them from other users in the system. Each user has different privileges and assignments set initially to access the system. After entering the credentials, the system validates them, granting

the user access to the system. Once the user successfully logs in, they are directed to the dashboard where they can perform different actions depending on their privileges e.g., perform employee actions or tasks and HR overall general management.
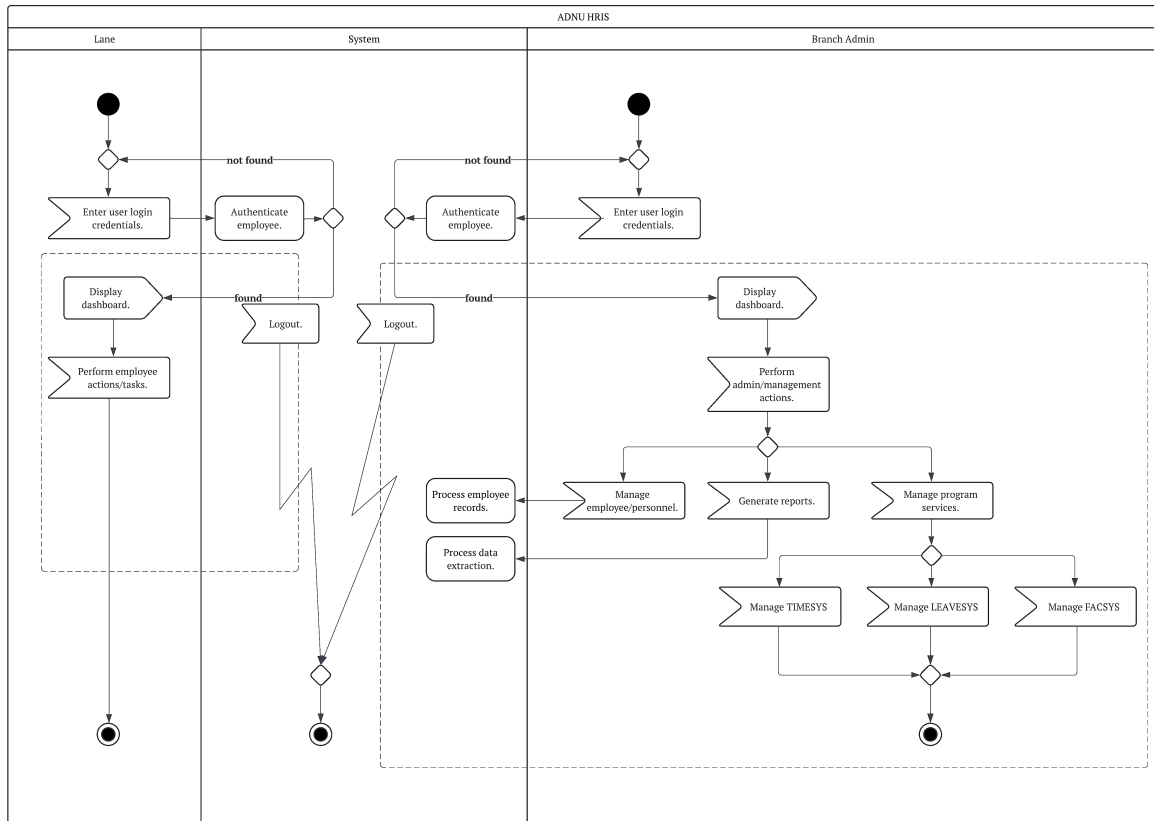

Figure 0.2: HRIS Swim-lane Diagram Model.

Each branch admin area can perform admin privileges and manage different modules within the system. For these actions, they are processed and managed under the system to provide a streamlined operation for any users in the system. For every branch admins will have access to core modules e.g., Manage employee/personnel containing the employee contacts, personal information, profiles, assignments, assignment archive, faculty rank, academic, academic awards, professional license, training attendance, Certificate of Employment (COE), and health record.

Besides this, an admin can also generate different kinds of reports within the system e.g., performing

data extraction, queries, employee performance evaluation, COE reports, contracts/appointment generation, etc.

0.3   Use Case Diagram

The use case diagram serves as a visual representation of the functional requirements of the system from an external user's perspective. It illustrates the interactions between users and the system, showcasing the various use cases and how they relate to each other. In the context of the HRIS application, the use case diagram will outline the different functionalities that users can perform within the system, such as employee management, payroll processing, and performance evaluation. By mapping out these interactions, the use case diagram helps in identifying the system's behavior and the roles of different users in the HRIS application.

Figure 0.3: HRIS Use Case Diagram Model.

0.4   Entity Relational Diagram

The Entity Relational Diagram (ERD) visually represents the database structure and relationships between entities in the HRIS application. It includes entities like employees, departments, positions, and their relationships.
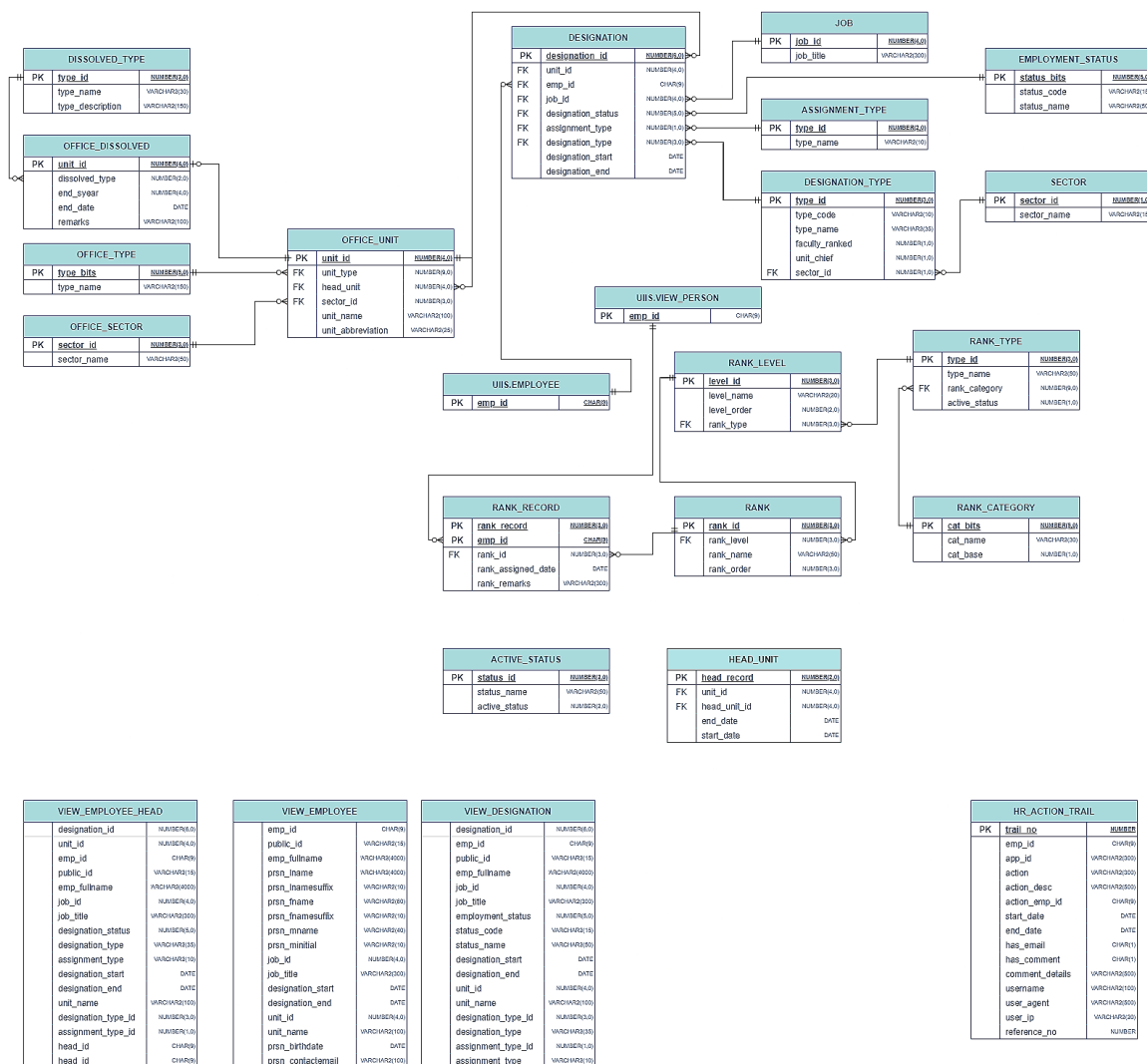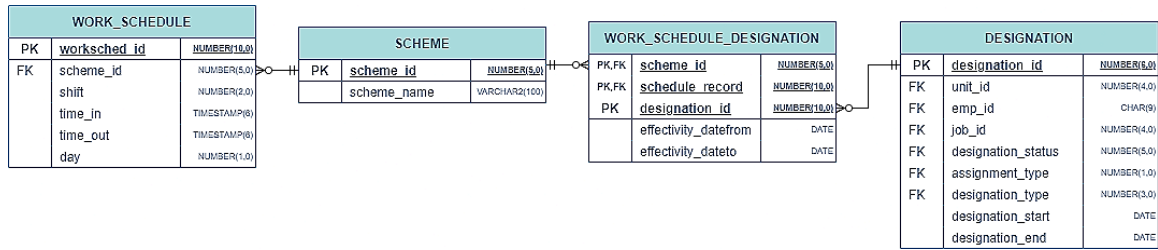
Figure 0.4: HRIS Core ERD Model.

WORK_SCHEDULE

PK	worksched_id	NUMBER(10,0)
FK	scheme_id	NUMBER(5,0)
	shift	NUMBER(2,0)
	time_in	TIMESTAMP(6)
	time_out	TIMESTAMP(6)
	day	NUMBER(1,0)

SCHEME

PK	scheme_id	NUMBER(5,0)
	scheme_name	VARCHAR2(100)

WORK_SCHEDULE_DESIGNATION

PK,FK	scheme_id	NUMBER(5,0)
PK,FK	schedule_record	NUMBER(10,0)
PK	designation_id	NUMBER(10,0)
	effectivity_datefrom	DATE
	effectivity_dateto	DATE

DESIGNATION

PK	designation_id	NUMBER(6,0)
FK	unit_id	NUMBER(4,0)
FK	emp_id	CHAR(9)
FK	job_id	NUMBER(4,0)
FK	designation_status	NUMBER(5,0)
FK	assignment_type	NUMBER(1,0)
FK	designation_type	NUMBER(3,0)
	designation_start	DATE
	designation_end	DATE

Figure 0.5: HRIS TIMESYS ERD Model.

LEAVE_DURATION

PK	date_record	NUMBER(2,0)
	leave_id	NUMBER
	date_time_from	DATE
	date_time_to	DATE

LEAVE_APPLICATION

PK	leave_id	NUMBER
FK	leave_type_id	NUMBER(2)
FK	Leave_class_id	NUMBER(2)
	emp_id	CHAR(9)
	endorsement_date	DATE
	endorsed_by	CHAR(9)
	approval_date	DATE
	approved_by	CHAR(9)
	cleared_by	CHAR(9)
	application_date	DATE
	remarks	VARCHAR2(1000)
	specific_purpose	VARCHAR2(1000)
	reason	VARCHAR2(1000)
	ob_venue	VARCHAR2(500)
	approved_duration	NUMBER(5,2)
	proof	VARCHAR2(1000)
	leave_validity_id	NUMBER(1,0)
	disapproved_by	CHAR(9)
	unit_id	NUMBER
	disapproval_date	DATE
	cancellation_date	DATE
	remarks_endorser	VARCHAR2(1000)
	designation_id	NUMBER(6,0)

LEAVE_CLASSIFICATION

PK	leave_calss_id	NUMBER(2,0)
	leave_class_name	VARCHAR2(300)

LEAVE_TYPE

PK	leave_type_id	NUMBER(2,0)
	leave_type_name	VARCHAR2(300)
	max_credit	NUMBER(4,2)
	leave_type_abbrev	VARCHAR2(10)

LEAVE_CREDIT

PK	leave_credit_record	VARCHAR2(12)
	leave_validity_id	NUMBER(5,0)
	emp_id	CHAR(9)
	leave_type_id	NUMBER(2,0)
	available_credit	NUMBER(5,2)

LEAVE_VALIDITY

PK	leave_validity_id	NUMBER(5,0)
	is_valid	NUMBER(1,0)
	validity_date_from	DATE
	validity_date_to	DATE

UIIS.EMPLOYEE

PK	emp_id	CHAR(9)

HOLIDAY

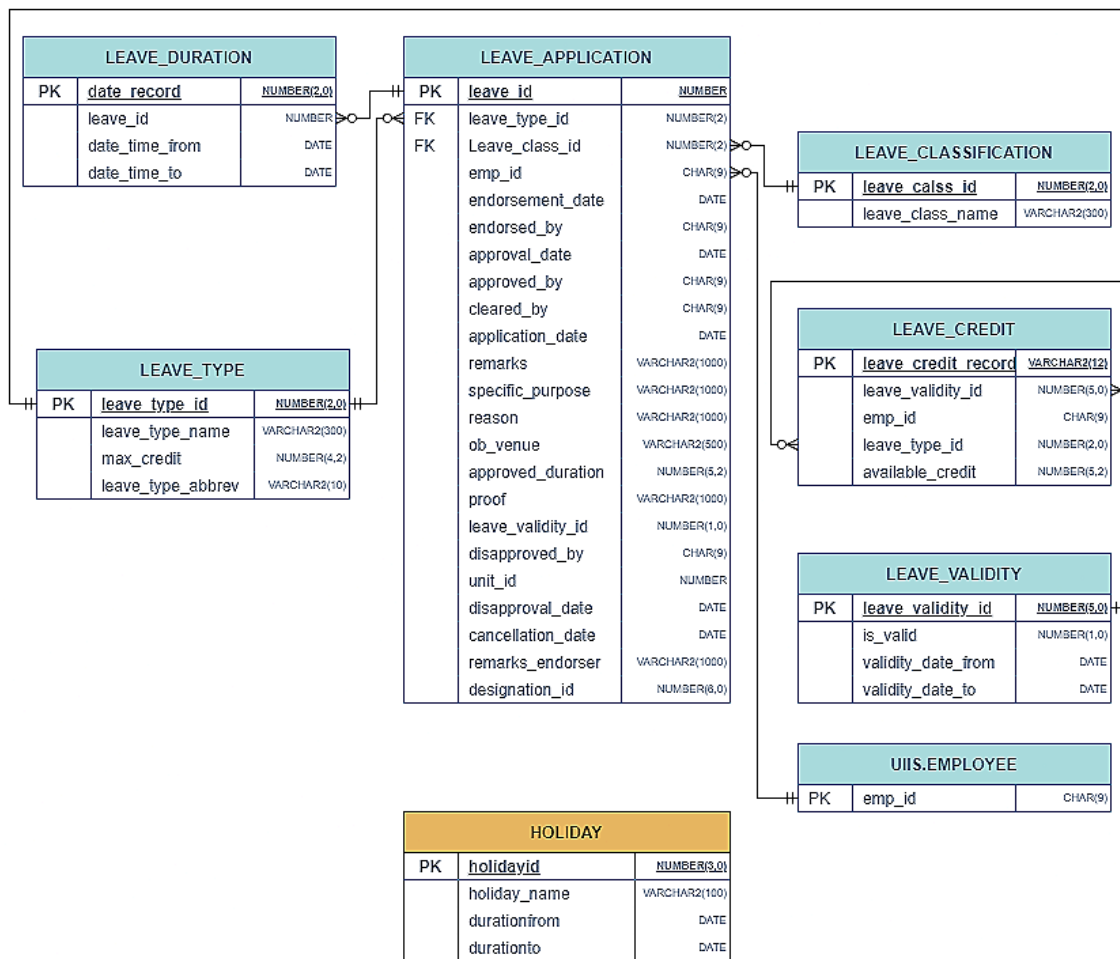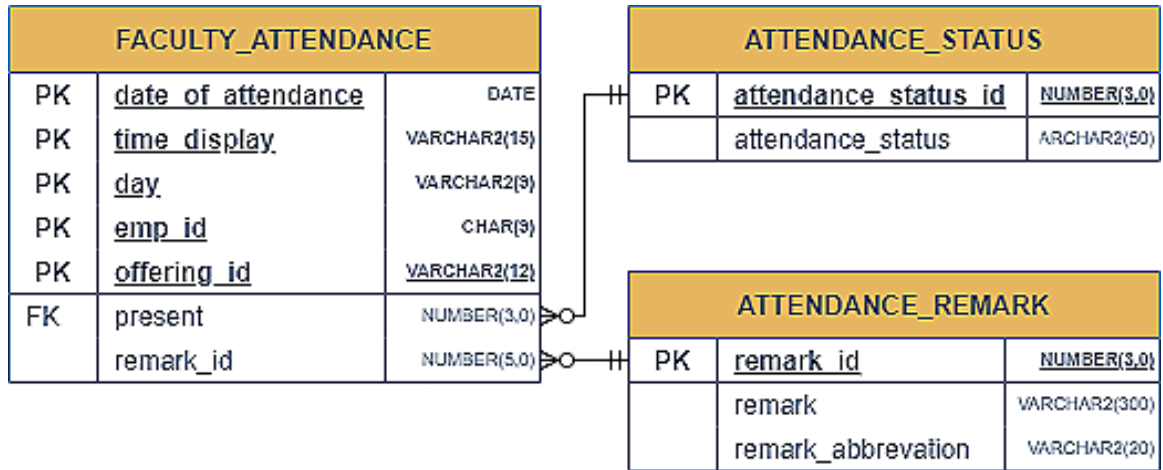|		
PK	holidayid	NUMBER(3,0)
	holiday_name	VARCHAR2(100)
	durationfrom	DATE
	durationto	DATE

Figure 0.6: HRIS LEAVESYS ERD Model.

Figure 0.7: HRIS FACSYS ERD Model.

0.5 Gantt Chart

Gantt chart allows for a visual representation of the project schedule that outlines the tasks, milestones, and dependencies throughout the development time. In connection with the development of project management strategy through RAD, the HRIS application's use of a Gantt chart will help in planning and tracking the project's progress. It will break down the development process into specific tasks, assign responsibilities, and establish timelines for each phase of the project.

With this, the development team can effectively manage resources, monitor progress, and ensure that the project stays on track to meet the specified deadlines.

ADNUHRIS (CAPSTONE)
Read-only view, generated on 22 Jul 2024

Instagantt

	ACTIVITIES	ASSIGNEE	EH	START	DUE	%
	Project Preparation and Approval	-		28/Jun	24/Jul	5%
1	Submission of Project Propo...	Unassigned	-	28/Jun	22/Jul	0%
2	Approval of Project Proposal	Unassigned	-	23/Jul	23/Jul	0%
3	Setup Initial Space Folder in ...	Unassigned	-	24/Jul	24/Jul	100%
	Project Initiation		-	25/Jul	01/Aug	
5	Project Kickoff	Unassigned	-	25/Jul	01/Aug	0%
	Project Planning and Design		-	28/Jun	07/Aug	67%
7	Requirements Gathering an...	Unassigned	-	28/Jun	21/Jul	100%
8	Detailed System Design	Unassigned	-	22/Jul	30/Jul	50%
9	Review and Approval of Syst...	Unassigned	-	31/Jul	07/Aug	0%
	Migration		-	14/Jul	17/Aug	0%
11	Assessment and Planning	Unassigned	-	14/Jul	04/Aug	0%
12	Data Mapping and Cleansing	Unassigned	-	05/Aug	06/Aug	0%
13	Migration Design	Unassigned	-	07/Aug	11/Aug	0%
14	Execution Phase	Unassigned	-	12/Aug	14/Aug	0%
15	Post-Migration Phase	Unassigned	-	14/Aug	17/Aug	0%
	Module Development		-	08/Aug	10/Oct	0%
17	User Privileges Development	Unassigned	-	08/Aug	12/Aug	0%
18	User Authentication and Au...	Unassigned	-	13/Aug	13/Aug	0%
	HRIS Core Module	Unassigned	-	14/Aug	30/Sep	0%
20	Personal Information	Unassigned	-	21/Aug	25/Aug	0%
21	General Employee Stat...	Unassigned	-	25/Aug	27/Aug	0%
22	Employee Profile	Unassigned	-	27/Aug	29/Aug	0%
23	Assignment	Unassigned	-	29/Aug	01/Sep	0%
24	Assignment Archive	Unassigned	-	03/Sep	07/Sep	0%
25	Academic	Unassigned	-	08/Sep	10/Sep	0%
26	Academic Awards	Unassigned	-	09/Sep	10/Sep	0%
27	Professional License	Unassigned	-	11/Sep	13/Sep	0%
28	Trainings Attended Mo...	Unassigned	-	14/Sep	16/Sep	0%
29	Performance Evaluation	Unassigned	-	17/Sep	20/Sep	0%
30	COE	Unassigned	-	17/Sep	19/Sep	0%
31	COE Reports	Unassigned	-	20/Sep	24/Sep	0%
32	Contracts/Appointment ...	Unassigned	-	25/Sep	28/Sep	0%
33	Health Record	Unassigned	-	27/Sep	30/Sep	0%
34	Report Generation Develop...	Unassigned	-	02/Oct	09/Oct	0%
35	Integrated Modules Review ...	Unassigned	-	07/Oct	10/Oct	0%
	Iteration Development		-	11/Oct	27/Oct	0%
37	Iteration Development for ...	Unassigned	-	11/Oct	25/Oct	0%
38	Iteration Review and Demo	Unassigned	-	26/Oct	27/Oct	0%
	Testing		-	28/Oct	17/Nov	0%
40	System Testing Completion	Unassigned	-	28/Oct	03/Nov	0%
41	User Acceptance Testing	Unassigned	-	04/Nov	10/Nov	0%
42	Test Closure	Unassigned	-	11/Nov	17/Nov	0%
	Deployment		-	18/Nov	30/Nov	0%
44	Pre-deployment Preparation	Unassigned	-	18/Nov	22/Nov	0%
45	Production Deployment	Unassigned	-	24/Nov	30/Nov	0%
	Training and Documentation		-	29/Nov	08/Dec	0%
47	User Documentation Devel...	Unassigned	-	29/Nov	29/Nov	0%
48	User Training Delivery	Unassigned	-	30/Nov	06/Dec	0%
49	Project Technical Document...	Unassigned	-	07/Dec	08/Dec	0%
	Project Closure		-	09/Dec	19/Dec	0%
51	Formal Project Closure	Unassigned	-	09/Dec	19/Dec	0%

Figure 0.8: HRIS Gantt Chart Timeline.

0.6   System Snapshots

In this section, contains some of the few initial screen mock-ups for redesigning among the major services of the previous HR system. This includes samples high-fidelity wire frame made in Figma. This allows for better visualization to the expected output for the new ADNU HRIS.

Figure 0.9: New HRIS Login Page.

The new design displays the redesigned login page. It features a clean, modern interface with input fields for username and password, as well as a prominent login button. The design emphasizes user-friendliness and security for accessing the HRIS platform.
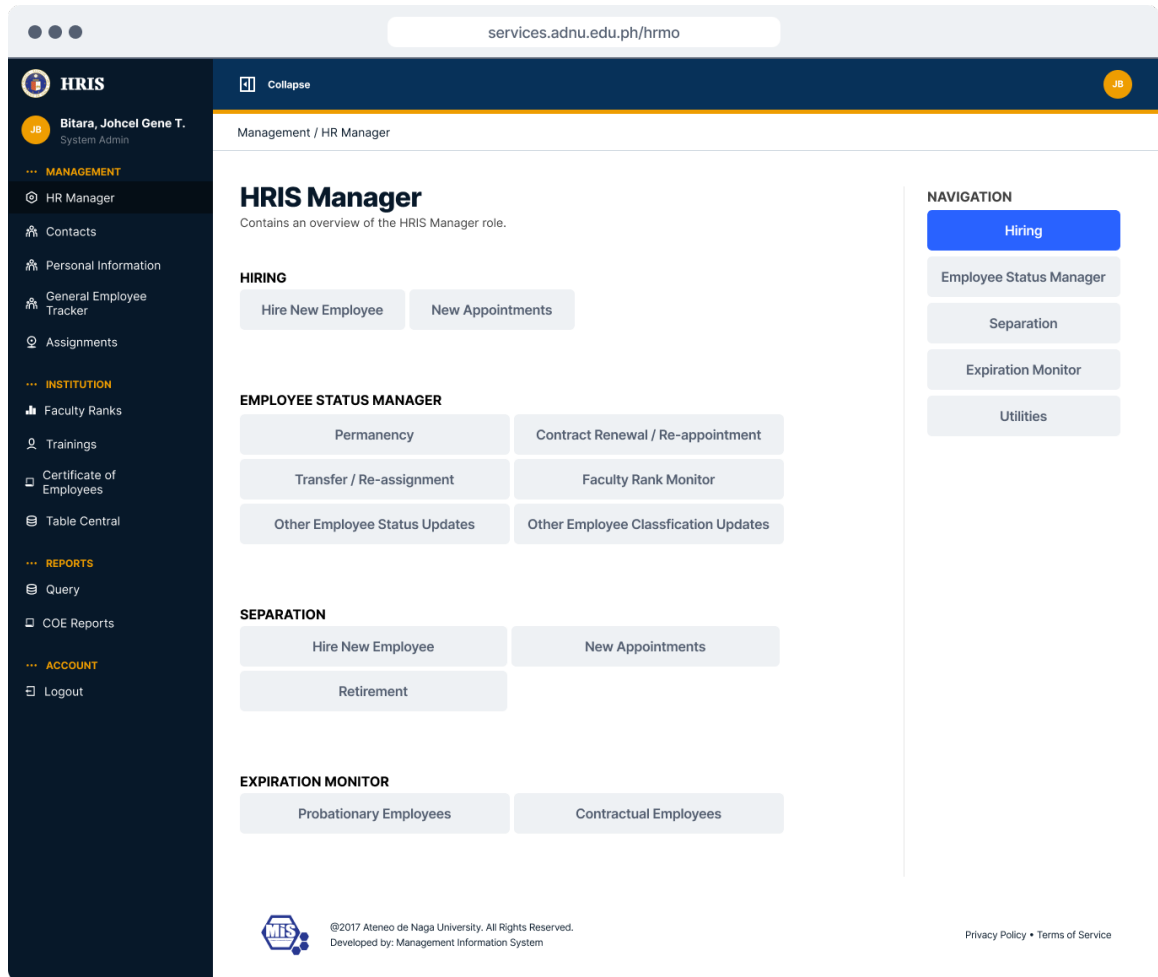
Figure 0.10: New HRIS Manager Page.

The figure presents the newly designed HRIS Manager page. This includes mainly making use of better user experience with enlarged buttons and easier navigation with the use of better UI layout.

Figure 0.11: New HRIS Data Extraction Page.

This figure showcases the new Data Extraction Page. The interface is designed to facilitate efficient retrieval of HR data, likely offering options for customizable reports, data filtering, and export

functionalities.

Figure 0.12: New General Employment Status Tracker Page.

This figure illustrates the new General Employment Status Tracker (GEST) page. The GEST interface likely provides a comprehensive view of employee statuses across the organization. It includes employment types, contract durations, leave statuses, and other key indicators of workforce composition.

Figure 0.13: Personal Information for All Employees.

This figure displays all the basic personal information for all employees in table view. This includes their personal information. Admins can select among the employees to view more of their personal information.

Figure 0.14: Creating New Personal Information in the Record.

This figure displays the interface for creating new personal information in the record. Admins can input the necessary information for the employee to be added to the system.

Figure 0.15: New HRIS Table Central Page.

This figure displays the HRIS Table Central module wherein, managers can manage certain sectors and department information and make updates within the University.

Figure 0.16: New HRIS Certificate of Employment Processing Page.

This interface is designed to streamline the creation and issuance of employment certificates. Managers can select employees and generate COE for each University personnel.