- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

Mapping of COs to Assessment Rubrics:

	Internal Exam	**Assignment**	**Lab Assessment**	**End Semester Examinations**
CO 1	✓		✓	✓
CO 2	✓	✓	✓	✓
CO 3	✓		✓	✓
CO 4	✓	✓	✓	✓

7. LOW CODE APPLICATION DEVELOPMENT

Discipline	COMPUTER SCIENCE
Course Code	UK3DSCCSC206
Course Title	LOW CODE APPLICATION DEVELOPMENT
Type of Course	DSC
Semester	III
Academic Level	2

Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	4	3 hours		2 hours	5 hours
Pre-requisites	Basic awareness of the computer science domain.				
Course Summary	This course aids any beginner without profound knowledge in computers in developing applications.				

Detailed Syllabus:

Module	Unit	Content	Hrs (L+P)
I		**Foundations of No-Code Development and Web Scraping**	15
	1	No Code Fundamentals - What is No-Code Development? - Top Benefits and Limitations of No-Code Apps - What can you build with No-Code? - Who can use zero-code platforms? – What is the history and future of no-code? – Popular No-Code development platforms - Fundamentals of Workflow - How can workflow automation help your business? Examples of Workflow Automation.	
	2	Introduction to Web Scraping - What is No-Code Web Scraping? - ScrappingBee for Web scraping API	
II		**No Code Web Development with WebFlow and Bubble**	15
	3	Introduction to WebFlow - How websites are built? - Overview of Designer Interface - The Box Model - Webflows Designer - The User Interface - Changing Font Style And Elements Size - Editing Content - Editing Button And Using Classes - Changing Background Color And Size - Reusing elements with Symbols - Publishing with WebFlow	
	4	Introduction to Bubble - Bubble Core Concepts - What you can build with Bubble? - How to navigate Bubble.io? - Structuring a Bubble Database - Flexbox responsive design - Workflow creation in Bubble	
III		**App Development Essentials with ChatGPT Integration**	15

		Evolution of Mobile App Builders - The Fundamentals of Glide - Benefits of Glide for App Development - Glide App Editor Overview - Glide Settings Overview - Glide Components - Google Sheets Vs Glide Data Editor - Understanding Table Relations - Glide Actions	
	5		
	6	Introduction to Thunkable - Getting Started: Sign In, Creation of New Projects - App Settings, Table View - Assets, UI Components Core Blocks - OpenAI ChatGPT Integration - Publish to App and Web Store.	
IV		**Chatbot Development Essentials**	**15**
	7	Traditional AI Journey - Key AI Components - AI Superpowers - No-Code AI Market - Popular No-Code AI Platforms - No-Code AI Considerations - What is Google Teachable Machine? - Model Training and Testing in Google Teachable Machine - Introduction to Microsoft Lobe.ai - Lobe Overview and Tool Walkthrough - Lobe.ai Examples	
	8	What is a Chatbot? - How a Chatbot can improve your business? - No-Code in Chatbots - Advantages of No-code chatbot development - Popular No-code chatbot builders - How to select the right no-code AI chatbot builder? - Getting Started with Landbot - Optimize the welcome message, Add the first sequence - Ask Questions with different question types (button, button with pics, multiple choice, email)	
V		**Flexi Module: Not included for End Semester Exams**	**15**
	9	Introduction to No-Code Databases and Automation - AirTable Sign Up and Create Database - Design the Workflow - Formula Field Type - Exporting/Importing Bases - Working with Filters - Managing Data with Groups - Sorting Functionality in AirTable - Views offered by AirTable - Kanban View, Form View, Calendar View - Working with multiple tables	
	10	Introduction to No-Code E-commerce App - What is Shopify? - Features of Shopify Platforms - Benefits of the Shopify platform for online store - Steps to create an online store in Shopify - Create a Shopify Account - Add Products to the Catalog - Customizing Your Shopify Online Store and Domain Setup - Payment Processor Activation - Market and Advertise Shopify e-commerce website -	

Text Books:

1. Paul.E.Love, "Mastering No-Code: Create Professional Quality Apps Without Coding (Vol.1)", ISBN: 979-8749478402

Lab Exercises

1. Tour around the different No-Code Tool Landscape
2. Building Workflow Automation using Low-Code
3. Create a web scraping tool using No-Code
4. Working with the Designer interface of WebFlow
5. Create a Responsive WebPage using WebFlow
6. Using Bubble build features like sign-up forms, expense trackers, inboxes, shopping carts
7. Build a Mindfulness app using Glide
8. Build a Task Tracker App Using Glide
9. Detect and Classify Face Masks using GoogleTeachable machine.
10. Build an Image Classification Model Using Lobe.ai
11. Build a Conversational Chatbot using LandBot
12. Create a workflow in AirTable
13. Build an Online Store using Shopify
14. Develop a website using a No-Code Stack of your choice

Course Outcomes

No.	Upon completion of the course, the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Summarise the fundamentals of No-Code, Workflows and perform Web Scraping using a No-Code App	U	PSO-1
CO-2	Build a Website using the popular No-Code Apps Webflow and Bubble.io	Ap	PSO-1,2,3
CO-3	Build Mobile Apps using the popular No-Code Apps Glide and Thunkable	Ap	PSO-1,2,3
CO-4	Build AI-powered apps using No-Code AI Tools	Ap	PSO-1,2, 3

R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create

Note: 1 or 2 COs/module

Name of the Course: LOW CODE APPLICATION DEVELOPMENT

Credits: 3:0:1 (Lecture: Tutorial: Practical)

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	Summarise the fundamentals of No-Code, Workflows and perform Web Scraping using a No-Code App	PO-6,7 PSO-1	U	F, C	L	-
2	Build a Website using the popular No-Code Apps Webflow and Bubble.io	PO-1, 2, 3, 6,7 PSO-1, 2, 3	Ap	F, C, P	L	P
3	Build Mobile Apps using the popular No-Code Apps Glide and Thunkable	PO-1, 2, 6,7 PSO-1, 2, 3	Ap	F, C, P	L	P
4	Build AI-powered apps using No-Code AI Tools	PO-1, 2, 3, 6,7 PSO-1, 2, 3	Ap	F, C, P	L	P

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

Mapping of COs with PSOs and POs:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4
CO 1	1	1	-	-	-	2	2		2	2	2	-
CO 2	1	1	2	-	-	2	2		2	1	2	-

CO 3	2	2	-	-	-	2	2		3	2	2	-
CO 4	1	1	2	-	-	2	2		3	1	2	

Correlation Levels:

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

Assessment Rubrics:

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
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Mapping of COs to Assessment Rubrics :

	Internal Exam	Assignment	Lab Assessment	End Semester Examinations
CO 1	✓			✓
CO 2	✓			✓
CO 3	✓			✓
CO 4		✓	✓	✓

8. CYBER CRIME AND LAWS

Discipline	COMPUTER SCIENCE
Course Code	UK3DSCCSC207