Chirayu Batra **21BCE5756**

This assignment is done with my project partner, Jay Khania (21BCE1394).

Ex.No. 2(a)

Title – Gantt Chart for our project.

Date: 2 May, 2023

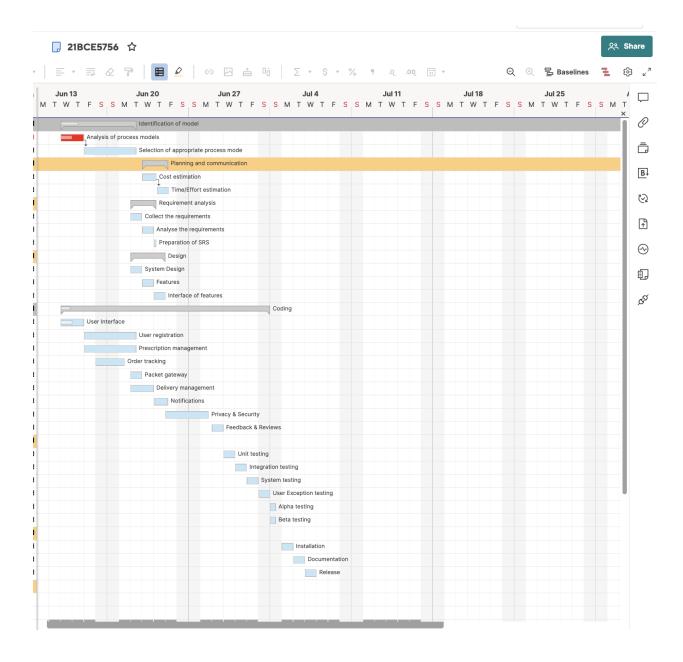
Aim:

To draw Gantt Chart for "Medicine Delivery App".

Description:

This Gantt Chart shows the timelines of various tasks and subtasks of our project regarding 'Medicine Delivery App'. The dates and time assigned to individual tasks and the people in the team who are being assigned are being pictorially represented. The basic structure of the Gantt Chart contains the duration of each task and under that the duration of each subtasks in a histogram format.

0 = 0	At Risk	Task Name	Start Date	End Date	Status ①	Assigned To	Duration (i)	Allocation %	Jun 13 Jun 20 Jun 27 Jul 4 Jul 11 Jul 18 Jul 25 M T W T F S S M T W T F
		- Identification of model	06/16/21	06/22/21			4.5d		Identification of model
P		Analysis of process models	06/16/21	06/17/21	Completed	Jay Khania	2d	100%	Analysis of process models
		Selection of appropriate process mode	06/18/21	06/22/21	Completed	Chirayu Ba	2.5d	50%	Selection of appropriate process mode
	F	- Planning and communication	06/23/21	06/25/21			2.25d		Planning and communication
		Cost estimation	06/23/21	06/24/21	Completed	Chirayu Ba	1.25d	70%	Cost estimation
		Time/Effort estimation	06/24/21	06/25/21	Completed	Jay Khania	1d	50%	Time/Effort estimation
		- Requirement analysis	06/22/21	06/24/21			2.25d		Requirement analysis
		Collect the requirements	06/22/21	06/22/21	In Progress	Jay Khania	1d	50%	Collect the requirements
		Analyse the requirements	06/23/21	06/23/21	In Progress	Chirayu Ba	1d	90%	Analyse the requirements
		Preparation of SRS	06/24/21	06/24/21	In Progress	Jay Khania	0.25d	100%	Preparation of SRS
	, E	- Design	06/22/21	06/24/21			3d		Design
		System Design	06/22/21	06/22/21	Completed	Chirayu Ba	1d	55%	System Design
		Features	06/23/21	06/23/21	Completed	Chirayu Ba	1d	60%	Features
	P	Interface of features	06/24/21	06/24/21	In Progress	Jay Khania	1d	80%	Interface of features
	*	- Coding	06/16/21	07/04/21			13d		Coding
		User Interface	06/16/21	06/17/21	In Progress	Jay Khania	2d	100%	User Interface
		User registration	06/18/21	06/22/21	In Progress	Chirayu Ba	2.5d	50%	User registration
		Prescription management	06/18/21	06/22/21	In Progress		2.5d	50%	Prescription management
		Order tracking	06/19/21	06/21/21	Completed	Chirayu Ba	1.5d	70%	Order tracking
		Packet gateway	06/22/21	06/22/21	Completed		1d	80%	Packet gateway
		Delivery management	06/22/21	06/23/21	Not Started		2d	50%	Delivery management
		Notifications	06/24/21	06/25/21	Completed		1.25d	100%	Notifications
		Privacy & Security	06/25/21	06/28/21	In Progress		1.75d	30%	Privacy & Security
	P	Feedback & Reviews	06/29/21	06/29/21	Not Started	Chirayu Ba	1d	40%	Feedback & Reviews
	F	Testing					5d		
		Unit testing	06/30/21	06/30/21	Completed		1d	40%	Unit testing
		Integration testing	07/01/21	07/01/21	In Progress	-	1d	60%	Integration testing
		System testing	07/02/21	07/02/21	In Progress		1d	70%	System testing
		User Exception testing	07/03/21	07/03/21	In Progress		1d	60%	User Exception testing
		Alpha testing	07/04/21	07/04/21	Not Started		0.5d	55%	Alpha testing
	P	Beta testing	07/04/21	07/04/21	Not Started	Jay Khania	0.5d	60%	Beta testing
	F	Deployment					3d		
		Installation	07/05/21	07/05/21	Not Started		1d	100%	Installation
		Documentation	07/06/21	07/06/21	Not Started		1d	90%	Documentation Documentation
	B	Release	07/07/21	07/07/21	Not Started	Jay Khnaia	1d	50%	Release
	F	Evolution							



Chirayu Batra 21 BCE 5756 User Medical Regultration App Opt medical Atore Store Delect Prescription medicino Payment Medicine Wolsad prescriptio brescription veing notreguised Make payment via multiple! payment arder Order Card placed Wallet Medical store Lerefy Driver Admin Creparal Going and parele collecting medicine Raitings If verify payment Medicina Order Driver pack delivered tolles Deliver to parkage ustomer

Result: Thus the Gantt chart is designed for planning the timeline of various activities for the project "Medicine Delivery App".

Ex.No. 2(b)

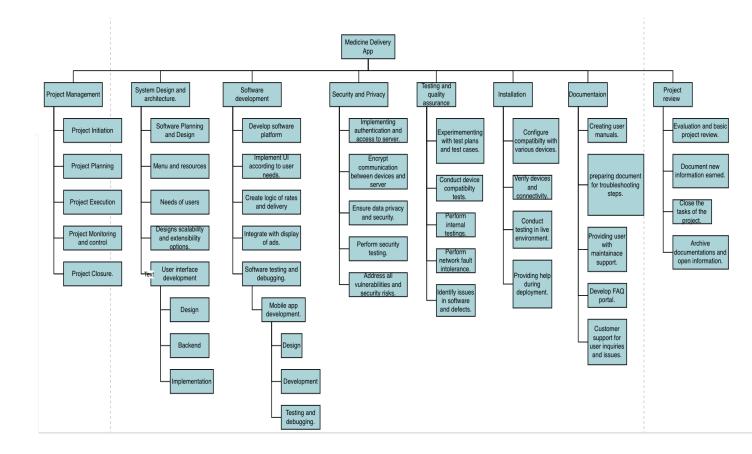
Title - Work Breakdown structure(WBS) for our project.

Aim:

To draw Work breakdown structure - role based for "Medicine Delivery App".

Description:

A Work Breakdown Structure (WBS) is a method of breaking down a project or deliverable into smaller, more manageable components. The WBS provides a framework for organizing, planning, and controlling project activities, representing the work that must be completed to finish the project. The WBS is usually presented as a hierarchical chart or tree structure, with the highest level representing the project or deliverable and subsequent levels breaking down the work into smaller components. Each element in the WBS should be well-defined, mutually exclusive, and collectively exhaustive to ensure that all project work is accounted for. The WBS enables better project planning, resource allocation, and control by breaking the project into manageable pieces, allowing project managers to effectively execute complex projects. It is also a foundation for other project management processes such as scheduling, cost estimation, risk management, and quality control, promoting a structured and systematic approach to project execution.



Result:

Thus the work breakdown structure is designed for planning the timeline of various activities for the project "Medicine Delivery App".

Ex.No. 2(c)

Title – FP based estimation for our project.

Date: 13 May, 2023

Aim:

To do FP based Estimation for "Medicine Delivery App".

Description:

FP-based cost estimation is a technique used to predict the effort, cost, and resources needed for software development projects. It relies on function points to quantify the software's functionality, which is determined by the inputs, outputs, inquiries, and data files it processes. FP-based cost estimation is useful because it provides a standardized and objective approach that facilitates comparison across different projects, making resource planning, budgeting, and project scheduling easier. However, it is crucial to note that FP-based cost estimation is subject to assumptions and historical data, and its accuracy is dependent on the quality of the function point analysis and the productivity factor used. To improve the accuracy of the estimation, other factors such as project complexity, technology factors, team experience, and environmental constraints must be considered and factored in.



FP CALCULATOR

Domain Characteristic Table

MEASUREMENT PARAMETER	COUNT (value >= 0)	WE Simple	EIGHTING FACT Average	OR Complex
Number of User Input	21	0	•	0
Number of User Outputs	16	0	•	0
Number of User Inquiries	14	0	0	
Number of Files	9	0	0	•
Number of External Interfaces	14	0	0	•

Complexity Adjustment Table | FP Calculation

Complexity Adjustment Table

ITEM	COMPLEXITY ADJUSTMENT QUESTIONS	No Influ		SC	ALE		Essential	
I I LIVI	COMPLEXITY ADJUSTMENT QUESTIONS	0	1 1	2	3	4	5	
1	Does the system require reliable backup and recovery?	0	0	0	0	0	<u></u>	
2	Are data communications required?	0	0	0	0	0	0	
3	Are there distributed processing functions?	0	0	0	0	0	0	
4	Is performance critical?	0	0	0	0	0	0	
5	Will the system run in an existing, heavily utilized operational environment?	0	0	0	0	0	0	
6	Does the system require on-line data entry?	0	0	0	0	0	0	
7	Does the on-line data entry require the input transaction to be built over multiple screens or operations?	0	0	0	0	0	O	
8	Are the master files updated on-line?	0	0	0	0	0	<u></u>	
9	Are the inputs, outputs, files or inquiries complex?	0	0	0	0	0	<u></u>	
10	Is the internal processing complex?	0	0	0	0	0		
11	Is the code to be designed reusable?	0	0	0	0	0	0	
12	Are conversion and installation included in the design?	0	0	•	0	0	0	
13	Is the system designed for multiple installations in different organizations?	0	0	0	0	0	0	
14	Is the application designed to facilitate change and ease of use by the user?	0	0	0	0	0	0	

Domain Characteristic Table | FP Calculation

FP Calculation

NOTE: For any updates made on any of the entries, always click the 'Calculate Function Points' button to recalculate function points value.

Reset / Clear all form entries Calculate Function Points

PROJECT FUNCTION POINTS 627.600000000001

Top of Page | Domain Characteristic Table | Complexity Adjustment Table

Harvey Roy Divinagracia October 2000

Result:

Thus the FP based Estimation is done for planning the timeline of various activities for the project "Medicine Delivery App" and Project Function Point is coming as 627.600000000001.

EX-2d

Title - COCOMO based COST Estimation for our project.

Date: 14 May, 2023

Aim:

To do COCOMO based cost Estimation for "Medicine Delivery App".

Description:

COCOMO is a software cost estimation model developed by Barry Boehm in the 1980s. It employs a set of equations and factors to calculate the effort, cost, and duration of software development projects based on various project characteristics. COCOMO estimation provides a structured and systematic approach to estimating software development effort and cost, which helps with project planning, resource allocation, budgeting, and risk management. However, it is important to note that COCOMO estimation is based on assumptions and historical data. As such, the accuracy of the estimation depends on the quality of the size estimation, the relevance of the cost drivers used, and the quality of the historical data available. To improve accuracy, it is recommended to calibrate and adjust the estimation using project-specific factors and expert judgment.

Information Domain Values

Measurement Parameter	Count		Simple O	Average O	Complex o		Total
Number of user inputs	21	X	3	4	6	=	126.00
Number of user outputs	16	X	4	5	7	=	112.00
Number of user inquiries	14	X	3	4	6	=	84.00
Number of files	9	X	7	10	15	=	135.00
Number of external interfaces	14	X	5	7	10	=	140.00
Count=Total							597.00

Count Total

Complexity Weighting Factors // heading of the second table Rate each factor on a scale of 0 to 5: (0 = No influence, 1 = Incidental, 2 = Moderate, 3 = Average, 4 = Significant, 5 = Essential):

Anestron	U	1	2	3	4	3
1. Does the system require reliable backup and recovery?	0	0	0	0	0	0
2. Are data communications required?	0	0	0	0	0	0
3. Are there distributed processing functions?	0	0	0	0	0	0
4. Is performance critical?	0	0	0	0	0	0
5. Will the system run in an existing, heavily utilized operational environment?	0	0	0	0	0	0
6. Does the system require on-line data entry?	0	0	0	0	0	0
7. Does the on-line data entry require the input transaction to be built over multiple screens or operations?	0	0	0	0	0	<u></u>
8. Are the master file updated on-line?	0	0	0	0	0	0
9. Are the inputs, outputs, files, or inquiries complex?	0	0	0	0	0	0
10. Is the internal processing complex?	0	0	0	0	0	O
11. In the code designed to be reusable?	0	0	0	0	0	0
12. Are conversion and installation included in the design?	0	0	0	0	0	0
13. Is the system designed for multiple installations in different organizations?	0	0	0	0	0	0
14. Is the application designed to facilitate change and ease of use by the user?	0	0	0	0	0	0
Total 55.00						

Show Total of weighting Factor

The Function Points is: Show Function Points 716.40

Programming Language	LOC/FP (average)	Select
Assembly Language	320	0
C	128	0
COBOL	105	0
Fortran	105	0
Pascal	90	0
Ada	70	0
Object-Oriented Languages	30	O
Fourth Generation Languages (4GLs)	20	0
Code Generators	15	0
Spreadsheets	6	0
Graphical Languages (icons)	4	0

LOC/FP: Show LOC/FP 21492.00

Software Project a_b $\mathbf{b_b}$ $c_{\mathbf{b}}$ $\mathbf{d}_{\mathbf{b}}$ Select 0 0.38 Organic 2.4 1.05 2.5 Semi-detached 0.35 <u></u> 1.12 2.5 0 Embedded 3.6 1.20 2.5 0.32 Calculate Effort and Duration Effort (E) = $a_b(KLOC)^b_b$ = 93.17**Duration** (**D**) = $c_b(E)^d_b = 12.22$ Reset Data

Result:

Thus the COCOMO based cost Estimation is done for planning the timeline of various activities for the project "Medicine Delivery App".