

Software Project Management

LAB - 6

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Task 1: Project Setup

1. **Create a new Jira project:** Choose a suitable project type (e.g., Software) and name it "Healthcare Appointment System" or "HAS".

Set up Scrum framework.

The screenshot shows the Jira Timeline board for the "Healthcare-Appointment-System" project. The board is set to the "Timeline" view. At the top, there are navigation links for "Projects / Healthcare-Appointment-System", "HAS board", and three icons. Below the navigation is a header with "Summary", "Timeline" (which is selected), "Backlog", "Active sprints", "Calendar", "Reports", "List", "Forms", "Goals", "All work", "Components", and "More". There are also search and filter options. The main area is a timeline grid from September to November. On the left, there are sections for "Work", "Sprints", and "Releases". Under "Releases", there is a link to "HAS-1 HAS-function points". A blue vertical line marks the current date. At the bottom left, there is a "+ Create Epic" button.

2. Define an Epic issue type titled “HAS Function Points” to group related work.

Projects / Healthcare-Appointment-System

Has board  ...

 Summary  Timeline  Backlog  Active sprints  Ca

 Search timeline NK  Epic  Status category

Work	Just
Sprints	
Releases	
<input type="checkbox"/> >  HAS-1 HAS-function points	
+ Create Epic	

Task 2: Requirement Breakdown

1. Document **at least 10 user stories** in the backlog covering HAS features such as patient registration, doctors' schedule, appointment booking, billing system integration, medical record access, and reminders.

HAS board  ...[⊕ Summary](#) [Timeline](#) [Backlog](#) [Active sprints](#) [Calendar](#) [Reports](#) [List](#)   Version  Quick filters 

<input type="checkbox"/>  HAS Sprint 1  Add dates (10 work items)	56	0	0	Start sprint	...
<input checked="" type="checkbox"/> HAS-2 As a patient, I want to register with my pe...		TO DO	3	=	
<input checked="" type="checkbox"/> HAS-4 As a patient, I want to search for doctors ...		TO DO	3	=	
<input checked="" type="checkbox"/> HAS-5 As a patient, I want to book an appointme...		TO DO	8	=	
<input checked="" type="checkbox"/> HAS-7 As a doctor, I want to view my upcoming ...		TO DO	3	=	
<input checked="" type="checkbox"/> HAS-6 As a patient, I want to receive appointmen...		TO DO	5	=	
<input checked="" type="checkbox"/> HAS-9 As a billing officer, I want the system to g...		TO DO	8	=	
<input checked="" type="checkbox"/> HAS-11 As an admin, I want to view system usag...		TO DO	8	=	
<input checked="" type="checkbox"/> HAS-8 As a patient, I want to view and download...		TO DO	8	=	
<input checked="" type="checkbox"/> HAS-3 As a doctor, I want to add and update my ...		TO DO	5	=	
<input checked="" type="checkbox"/> HAS-10 As a patient, I want to pay my bills online...		TO DO	5	=	

2. Assign suitable **story points** to each story to indicate effort.

 HAS-1 / HAS-2



Details ^

Labels None

Due date None

Start date None

Story Points 3

Sprint HAS Sprint 1

Priority  Medium

Parent  HAS-1 HAS-function points

Task 3: Identifying Function Point Elements

1. Classify each as one of the following categories:

⚡ HAS-1 / HAS-2

1



...



As a patient, I want to register with my personal details so that I can create an account.



To Do ▾



⌘ Improve work item

UFP Total None

PP Weight 6

FP Type EI

UAF None

FP Complexity High

FP None

- Decide the **complexity level (Low, Average, High)** for each, based on FPA rules.

As we roll out 'work' as the new term for items tracked in Jira, you may still see 'issue' in some areas. Read about this [terminology change](#).

Create new field

Fields

ⓘ We're making some big changes to Jira

[Active fields](#) Deleted fields

Search by name or description

Field type category ▾

Columns 3

93 fields

Name	Field type	Description	Actions
FP	123 Number Field		...
UAF	123 Number Field		...
UFP Total	123 Number Field		...
Count	123 Number Field		...
FP Complexity	☒ Select List (single ch...)		...
FP Type	☒ Select List (single ch...)		...

Work item layout for "HAS: Scrum Default Issue Screen"

Drag fields to choose where to show them in the work item for the below work types in this project.

[Learn how your fields appear in the work item.](#)

To add more fields, or configure field tabs for this screen, go to "[HAS: Scrum Default Issue Screen](#)" 

Story Task Epic Sub-task

Description fields

 Summary

 FP ComplexityHigh

... >

 UAF

... >

 FP Complexity

... >

 FP

... >

 Description

... >

Work item layout for "HAS: Scrum Default Issue Screen"

Drag fields to choose where to show them in the work item for the below work types in this project.

[Learn how your fields appear in the work item.](#)

To add more fields, or configure field tabs for this screen, go to "[HAS: Scrum Default Issue Screen](#)" 

Story Task Epic Sub-task

 Status

 Assignee

... >

 FP Type

... >

 Reporter

... >

 Development

...

To configure this panel, [go to Development settings](#) .

 Labels

... >

 Due date

... >

 UFP Total

... >

Task 4: Function Point Estimation

1. Within it, include sub-tasks for:
 - **UFP Calculation** (Unadjusted Function Points)
 - **VAF Assessment** (Value Adjustment Factor)
2. In each sub-task, clearly document your **formulas, values, and justification**.

EI	1 High	1 Avg
EO	1 Low	5 Avg
EQ	6 High	4 Avg
ILF	10 Avg	15 High
EIF	7 Avg	5 Low

⇒ $\text{UFP} \rightarrow \text{total UFP (combined function points)}$
 $\Rightarrow \text{EI}$ (external input)

$$1 \text{ High} \times 6 = 6$$

$$1 \text{ Avg} \times 4 = 4 \quad \Rightarrow \text{EI total} = 6 + 4 = 10$$

⇒ External output (EO)

$$1 \text{ Low} \times 4 = 4$$

$$1 \text{ Avg} \times 5 = 5 \quad \Rightarrow \text{EO total} = 4 + 5 = 9$$

⇒ External inquiries (EQ)

$$1 \text{ High} \times 6 = 6$$

$$1 \text{ Avg} \times 4 = 4 \quad \Rightarrow \text{EQ total} = 6 + 4 = 10$$

⇒ Internal Logical files (ILF)

$$1 \text{ Avg} \times 10 = 10$$

$$1 \text{ High} \times 15 = 15$$

$$\Rightarrow \text{ILF} = 10 + 15 = 25$$

⇒ EIF (external interface files)

$$1 \text{ Avg} \times 7 = 7$$

$$1 \text{ Low} \times 5 = 5$$

$$\Rightarrow \text{EIF} = 7 + 5 = 12$$

$$\Rightarrow \text{UFP} = 10(\text{EI}) + 9(\text{EO}) + 10(\text{EQ}) + 25(\text{ILF}) + 12(\text{EIF}) \\ = 66$$

Step 3: calc VAF (value adjustment factor points)

formula: $VAF = 0.65 + (0.01 \times DI)$

[Given $DI = 35$]

$$\begin{aligned}VAF &= 0.65 + (0.01 \times 35) \\&= 0.65 + 0.35 = 1.00\end{aligned}$$

$VAF = 1$

Step 4: final function points (FP)

$$FP = UFP \times VAF = 66 \times 1 = 66$$

[$FP = 66$]

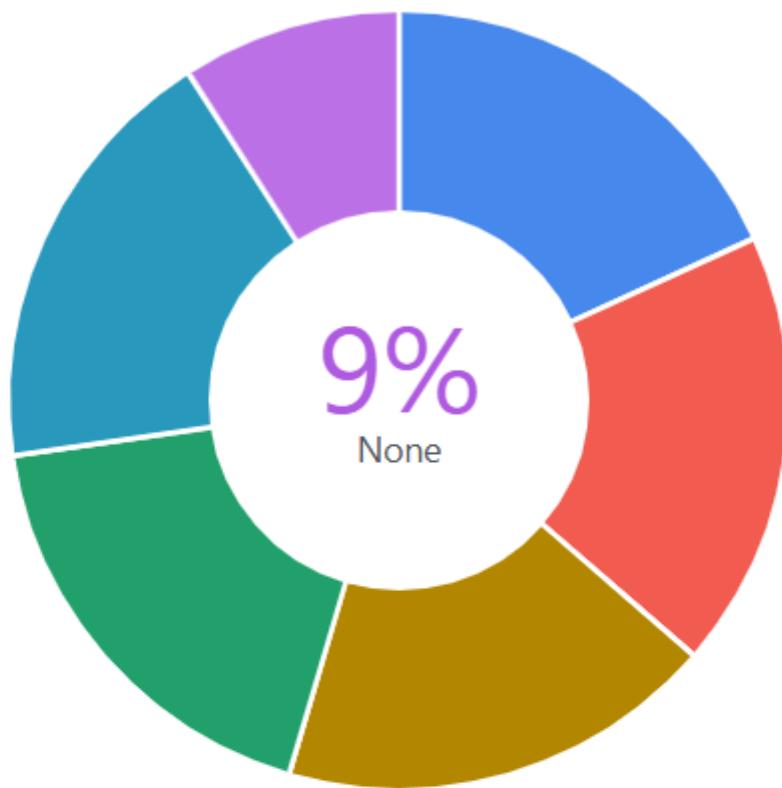
Final ans = UFP = 66, VAF = 1.00

Task 5: Reporting & Dashboard Creation

1. Add the following gadgets:

- **Pie chart** for the distribution of function point components.

⋮ Pie Chart: Healthcare-Ap... ↻ ⌂ ⌚ ...



FP Type
Total Issues: 11

■ E0	2
■ EI	2
■ EIF	2
■ EQ	2
■ ILF	2
■ None	1

so that
patients can
pay.

- | | | | |
|--|-----------------|-------|---------|
| <input checked="" type="checkbox"/> HAS-11 | As an admin, I | = ILF | Average |
| want to view system usage reports so that I can monitor appointments and revenue. | | | |
| <input checked="" type="checkbox"/> HAS-8 | As a patient, I | = ILF | High |
| want to view and download my medical records so that I can track my health history | | | |
| <input checked="" type="checkbox"/> HAS-3 | As a doctor, I | = EIF | Average |
| want to add and update my available schedule so that patients can book appointments. | | | |

1–10 of 11

1 2 >

5 6 7 8 9 10 11

- **Table view** of all FP components with their assigned complexity.

⋮ Filter Results: Filter for H...



T	Key	Summary	P	FP Type	FP	FP Complexity
	⚡ HAS-1	HAS-function = points				
	<input checked="" type="checkbox"/> HAS-2	As a patient, I = EI want to register with my personal details so that I can create an account.			High	
	<input checked="" type="checkbox"/> HAS-4	As a patient, I = EI want to search for doctors by specialty/date so that I can choose the right doctor.			Average	
	<input checked="" type="checkbox"/> HAS-5	As a patient, I = E0 want to book an appointment with a doctor so that I can consult.			Low	
	<input checked="" type="checkbox"/> HAS-7	As a doctor, I = E0 want to view my upcoming			Average	

- Number gadget showing the final Function Point count.

Filter Results: Filter for H...

T	Key	Summary	P	FP Type	FP	FP Complexity
	HAS-1	HAS-function points	=			
<input checked="" type="checkbox"/>	HAS-2	As a patient, I want to register with my personal details so that I can create an account.	=	E1		High
<input checked="" type="checkbox"/>	HAS-4	As a patient, I want to search for doctors by specialty/date so that I can choose the right doctor.	=	E1		Average
<input checked="" type="checkbox"/>	HAS-5	As a patient, I want to book an appointment with a doctor so that I can consult.	=	E0		Low
<input checked="" type="checkbox"/>	HAS-7	As a doctor, I want to view my upcoming	=	E0		Average

