



TECNOLÓGICO DE MONTERREY
Campus Querétaro

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Construcción de software y toma de decisiones

Avance de proyecto 2

Integrantes del equipo:

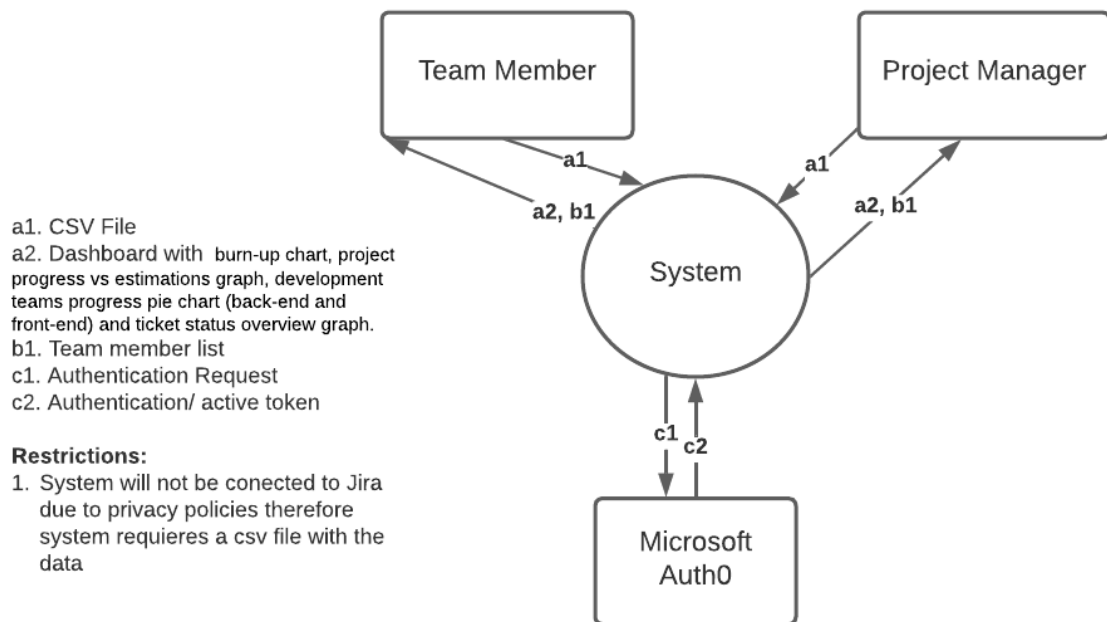
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05/03/2023

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Context Diagram



Business Rules

- Any user can upload files.
- The files that are uploaded to the system must be in csv format.
- Only team members are authorized to view the Dashboard of the assigned project.
- Each team member can assign themselves agile points. A team's week capacity will be the sum of each member's agile points.
- Each user must have a Microsoft account with the assigned email that corresponds to the company to enter the system.

Functional Requirements

Table of requirements's prioritization

4: high 3: medium high 2: medium 1: low

Number	Requirement	Priority	Difficulty	Stability	Risk
1	Import CSV	4	4	2	4
2	Visualize dashboard	4	4	3	3
3	Authentication	4	2	4	4
4	Create member	3	2	4	1

5	Assign member to project	3	2	4	1
6	Modify member capacity	3	1	3	1

Activity Diagrams

1. Use case description:

ID: U.C. 01

Name: Import CSV

Actor(s): User

Description: This function allows the user to interact with our system by submitting a CSV file, a file which has all the information from which our system proceeds to analyze.

Pre-conditions: User having a login session.

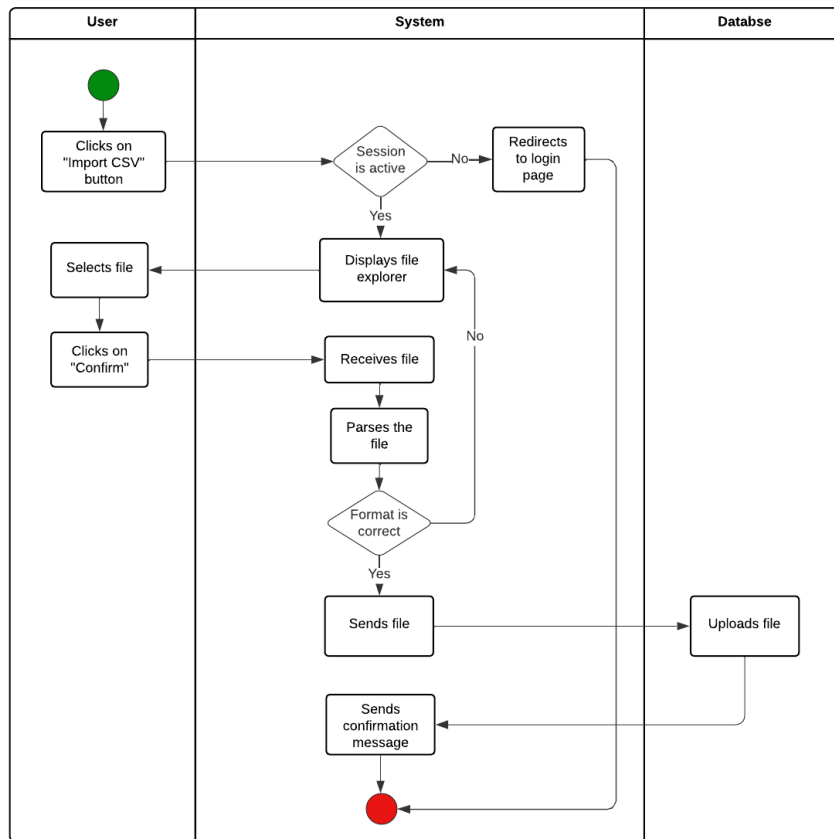
Post-conditions: System shows confirmation message of uploaded file.

Non-functional requirements:

1. Security: User has to be authenticated by Auth0.

Events flow	
Normal Course	Alternatives
1.1 User clicks on "Import CSV" button	
1.2 System validates on-going active session	1.2.1 If not, system redirects to login page
1.3 System displays file explorer	
1.4 User selects file	
1.5 System receives file	
1.6 System parses the file (analyzing it matches our database)	
1.7 System checks for correct format	1.7.1 If not, system displays file explorer (return to 1.3)
1.8 System uploads file information into database	
1.9 System sends confirmation message	

Import CSV



2. Use case description:

ID: U.C. 02

Name: Visualize Dashboard

Actors: User and database

Description: This function allows the user to visualize burn-up chart, project progress vs estimations graph, development teams progress pie chart (back-end and front-end) and ticket status overview graph.

Pre-conditions: Having uploaded information to the database with function 01 Import CSV.

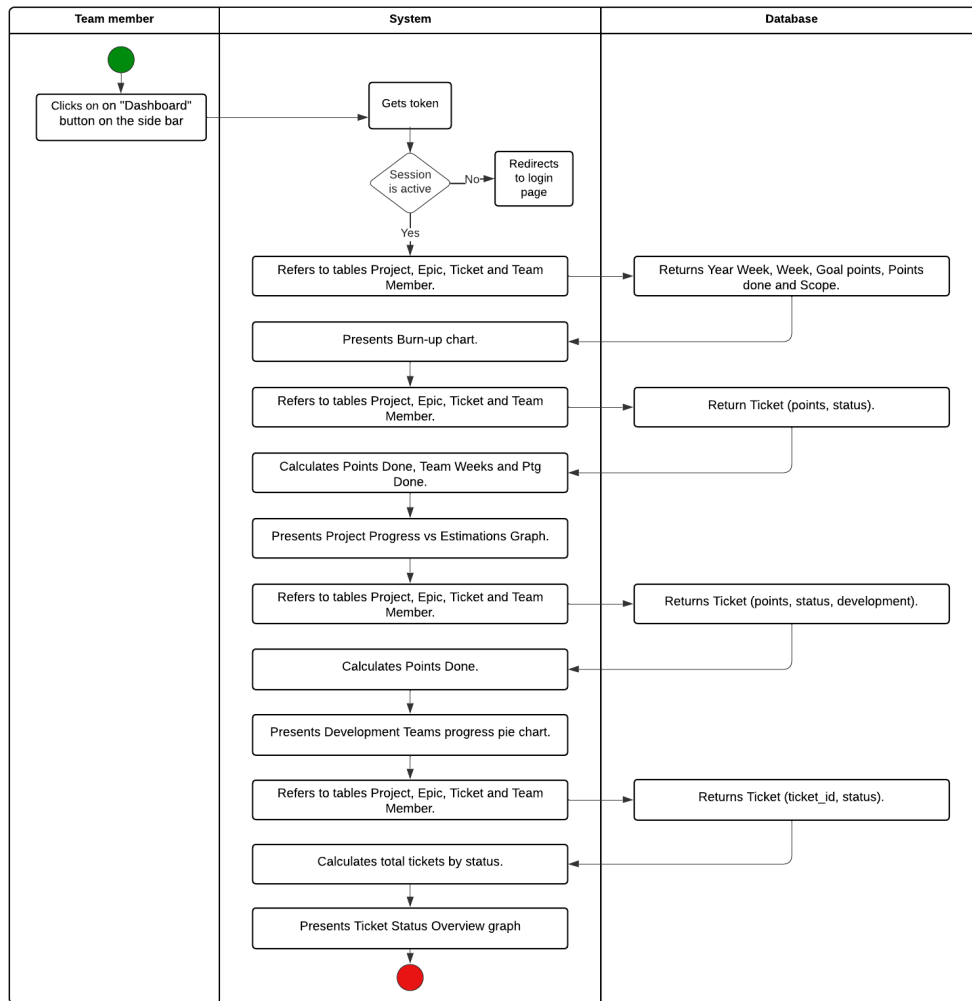
Non functional requirements:

1. Security: Token must be active during the use case.

Events flow	
Normal Course	Alternatives
2.1 Team member clicks on "Dashboard" button on the side bar	
2.2 Gets token	

2.3 System validates active token	2.3.1 If not, system redirects to log in page
2.4 System refers to tables Project, Epic, Ticket and Team Member from the database.	
2.5 Database returns Year Week, Week, Goal points, Points done and Scope.	
2.6 System presents Burn-up chart.	
2. 7 System refers to tables Project, Epic, Ticket and Team Member from the database.	
2.8 Database return Ticket (points, status).	
2.9 System calculates Points Done, Team Weeks and Ptg Done.	
2.10 System presents Project Progress vs Estimations Graph	
2. 11 System refers to tables Project, Epic, Ticket and Team Member from the database.	
2.12 Database returns Ticket (points, status, development)	
2.13 System calculates Points Done	
2.14 System presents Development Teams progress pie chart	
2.15 System refers to tables Project, Epic, Ticket and Team Member from the database.	
2.16 Database returns Ticket (ticket_id, status)	
2.17 System calculates total tickets by status	
2.18 System presents Ticket Status Overview graph	

Visualize Dashboard



3. Use case description:

ID: U.C. 03

Name: Authentication

Actor(s): User and Microsoft Auth0

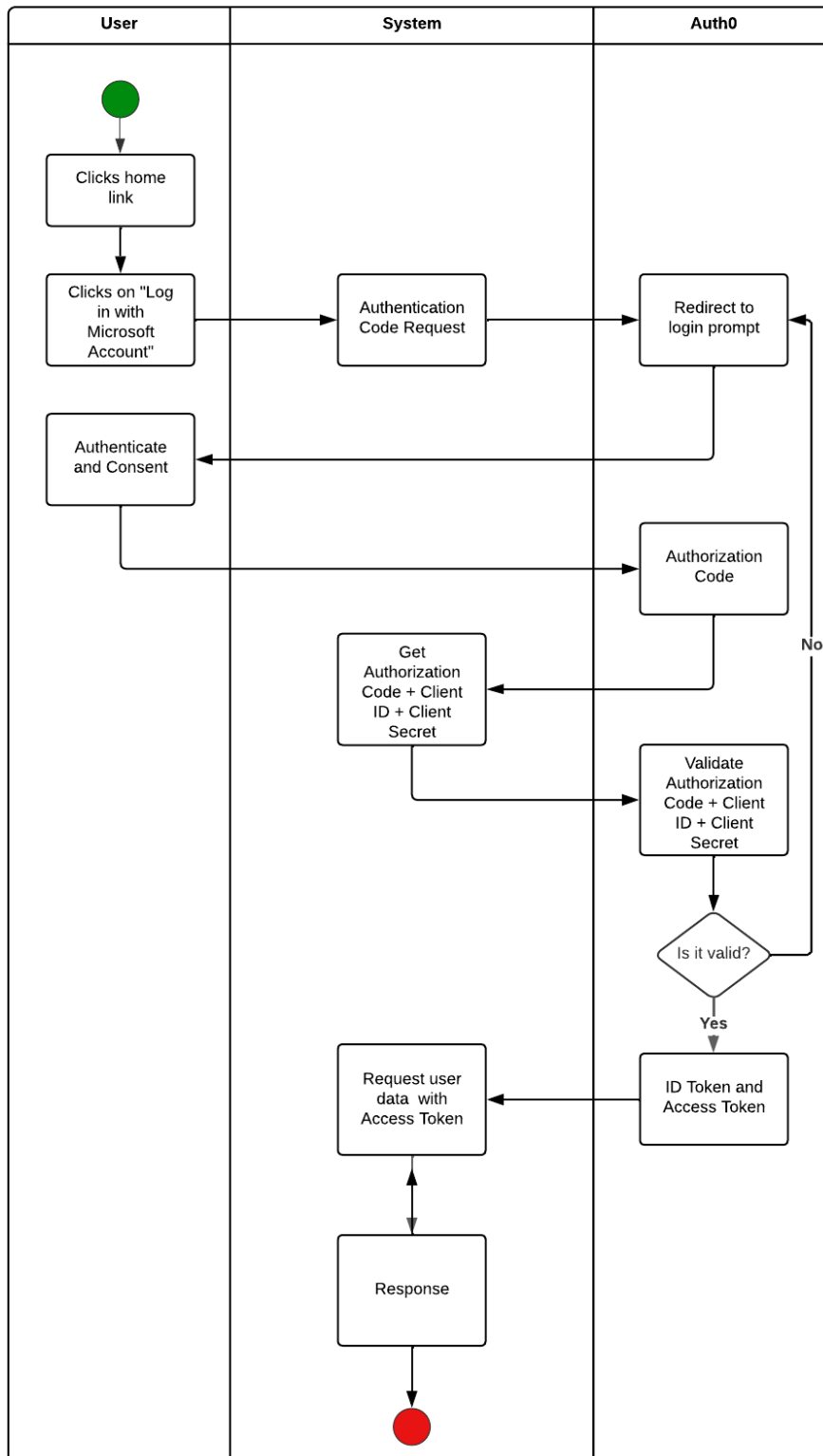
Description: This function allows unregistered users to get into the system to be able to use the functions that the system provides. The authentication is performed by Auth0 API.

Pre-conditions: Being unregistered and in the site URL.

Non-functional requirements: Having a @dispatchHealth.com email address.

Events flow	
Normal Course	Alternatives
3.1 Clicks home link	
3.2 Clicks on “Log in with Microsoft Account”	
3.3 System get Authentication Code Request	
3.4 API redirects to login prompt	
3.5 User authenticates and consent	
3.6 API gets Authentication Code	
3.7 System gets Authorization Code + Client ID + Client Secret	
3.8 API validates Authorization Code + Client ID + Client Secret	3.8.1 API negates access and redirect to login prompt
3.9 API brings ID Token and Access Token	
3.10 System Request user data with Access Token	
3.11 System responses	

Authentication



4. **Use case description:**

ID: U.C. 04

Name: Create member

Actor(s): User and Database

Description: This function

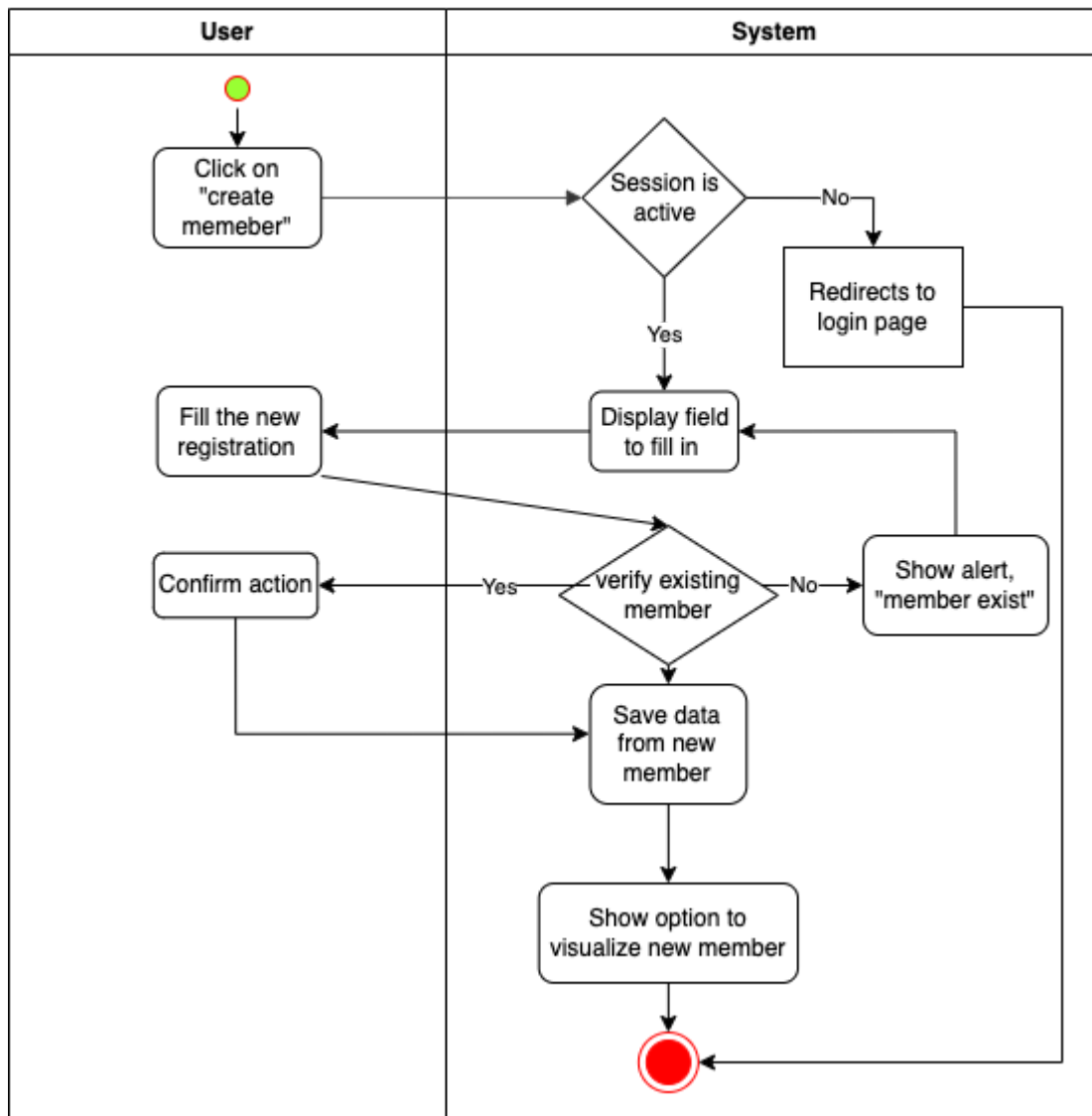
Pre-conditions:...

Post-conditions: ...

Non-functional requirements:

Events flow	
Normal Course	Alternatives
4.1 Click on “create member”	
4.2 System checks if the session is active	4.2.2 Redirect to login page
4.3 Display a space to put member’s data	
4.4 User fills the registration	
4.5 System verify if there is an existing contact	4.5.2 Show alert, “Member already exist”
4.6 Save data from new member	
4.7 Show option to visualize new member	

CreateMember



5. Use case description:

ID: U.C. 05

Name: Assign member to project

Actor(s): User

Description: This function allows the user to assign another user (or themselves) to a project.

Pre-conditions: User is on the project window.

Post-conditions: User is assigned as a member of the project.

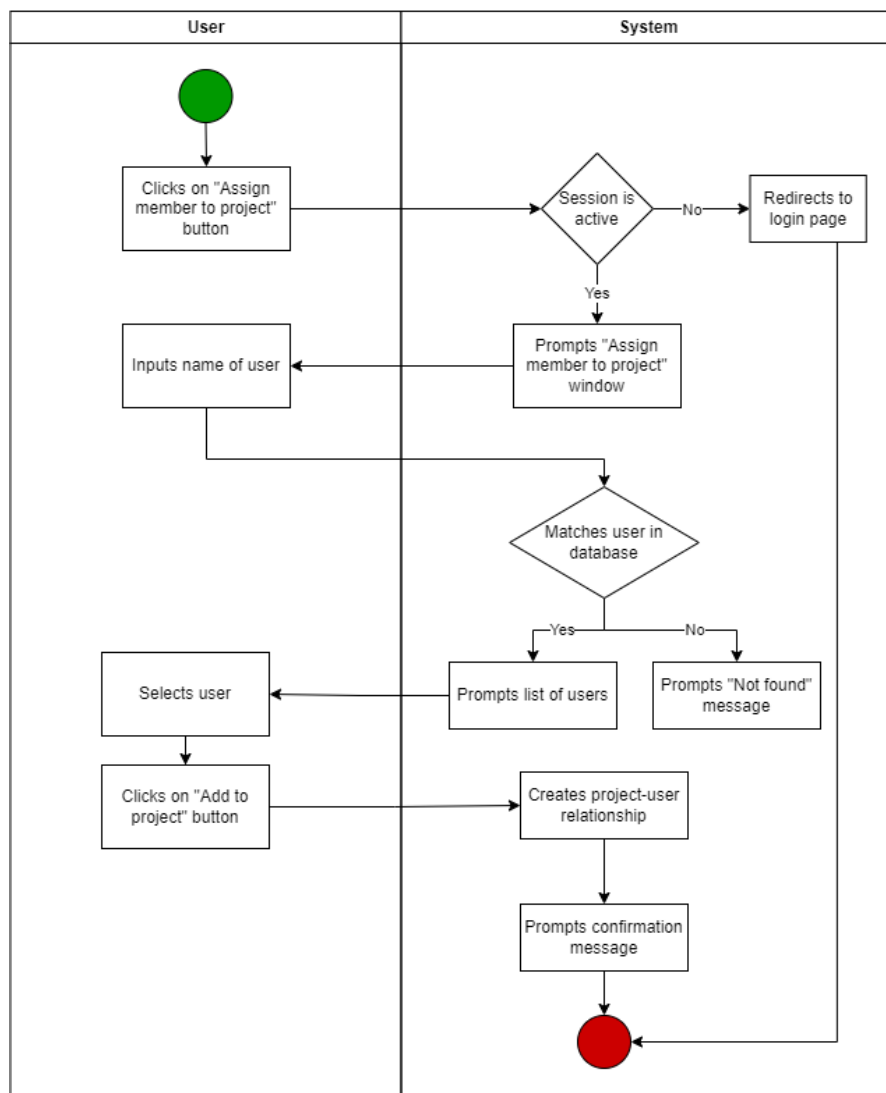
Non-functional requirements:

1. Security: User has to be authenticated by Auth0.

Events flow

Normal Course	Alternatives
5.1 User clicks on "Assign member to project" button	
5.2 System validates on-going active session	5.2.1 If not, system redirects to login page
5.3 System prompts "Assign member to project" window	
5.4 User inputs name of user	
5.5 System fetches the user matching the input	5.5.1 If none match, system prompts "Not found" message
5.6 User selects user's name	
5.7 User click on "Add to project button"	
5.8 System creates project-user relationship	
5.9 System prompts confirmation message	

Assign member to project



6. **Use case description:**

ID: U.C. 06

Name: Modify member capacity

Actor(s): User

Description: A team member can modify its capacity to make simulations of how its progress and estimation would look like.

Pre-conditions: /

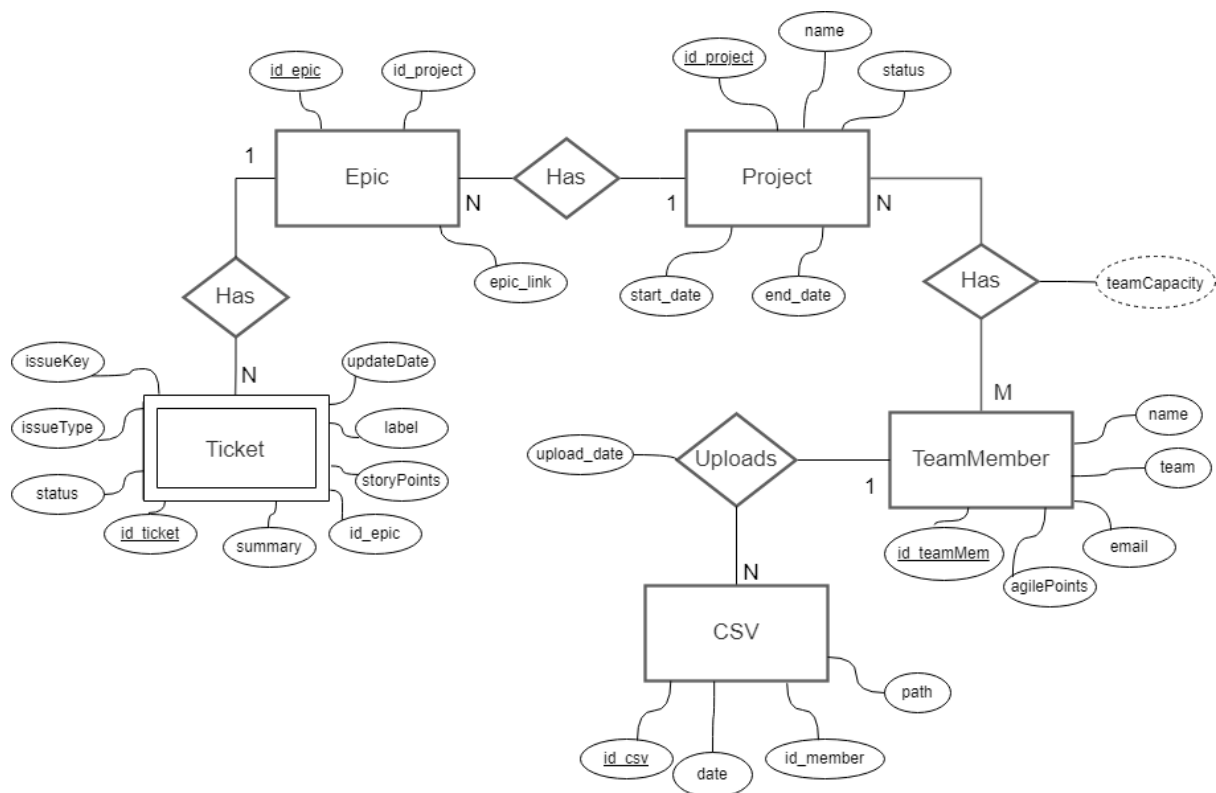
Post-conditions: System shows confirmation message of the procedure.

Non-functional requirements: User has to be authenticated by Auth0.

Events flow	
Normal Course	Alternatives
6.1 User clicks on "Modify member capacity button"	

6.2 System validates session is active	6.2.1 If not, system will redirect user to login page
6.3 System prompts window with capacity input	
6.4 User inputs value	
6.5 System sends value to database	
6.6 System prompts confirmation message	

Entity-relationship Model



Entity description

Entity: Project			
Field name	Description	Data type	Value examples
id_project	Numeric identifier	Unsigned integer	1 18231
name	Project name	Characters(100)	Care Request Re-Arch
status	Project status	Characters(20)	Deployed Dropped
start_date	Date started	Date	2022-06-10

end_date	Date ended	Date	2022-06-10
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Entity: Epic

Field name	Description	Data type	Value examples
id_epic	Numeric identifier	Unsigned integer	1 18231
epic_link	Jira identifier for epics	Characters(16)	NSE - 484

Entity: Ticket

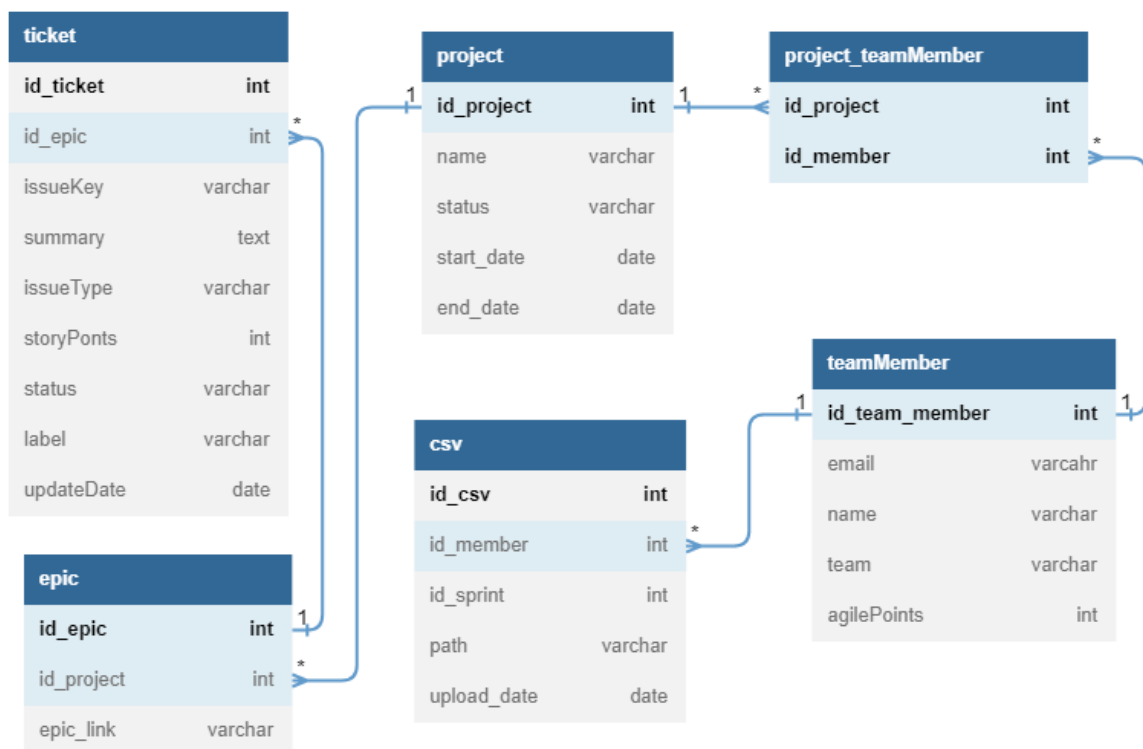
Field name	Description	Data type	Value examples
id_ticket	Numeric identifier	Unsigned integer	1 18231
issueKey	Jira identifier for tickets	Characters(16)	PART - 287
summary	Ticket summary	Characters(255)	Create UI filter: by patient name
issueType	Type of work	Characters(10)	Task Story
storyPoints	How much effort will this ticket take	1byte integer	1-5
status	Fulfillment status	Characters(20)	To Do Code Review
updateDate	Date when the ticket was solved	Timestamp	2023-02-15 14:35:18
lables	Additional labels	Characters(10)	part/Frontend

Entity: TeamMember

Field name	Description	Data type	Value examples
id_team_member	Numeric identifier	Unsigned integer	1 18231
name	Team member name	Characters(50)	Gabriel Patricia
team	The team where the member belongs	Characters(2)	BE FE
agile_points	How much work can the member do in a sprint	1byte integer	1-5
email	Member email	Characters(255)	someone@dispatchhealth.com

Entity: CSV			
Field name	Description	Data type	Value examples
id_csv	Numeric identifier	Unsigned integer	1 18231
path	Relative path where the file is stored	Text	./static/overview.csv
upload_date	Date when the file was uploaded	Timestamp	2023-02-15 14:35:18

Relational Model



Non-functional Requirements

Usability

The app will have a responsive interface that should allow the visibility of all the fundamental elements within the first screen. The integration will consider desktop resolutions. This is to be expected for the beta version of the app.

Performance

The app must allow at least 20 users to use the system simultaneously without exceeding response times of 1 second. This will be tested on the beta release of the app.

Security

The app will manage user authentication using Auth0 to guarantee access only to members of the company.

Portability

The app must be usable in the latest version of the following web browsers: Google Chrome, Firefox, Safari, and Microsoft Edge; in their desktop versions.

Maintenance

Once the app is delivered, it will be up to the client to maintain the app if they decide to keep it running.

Scalability

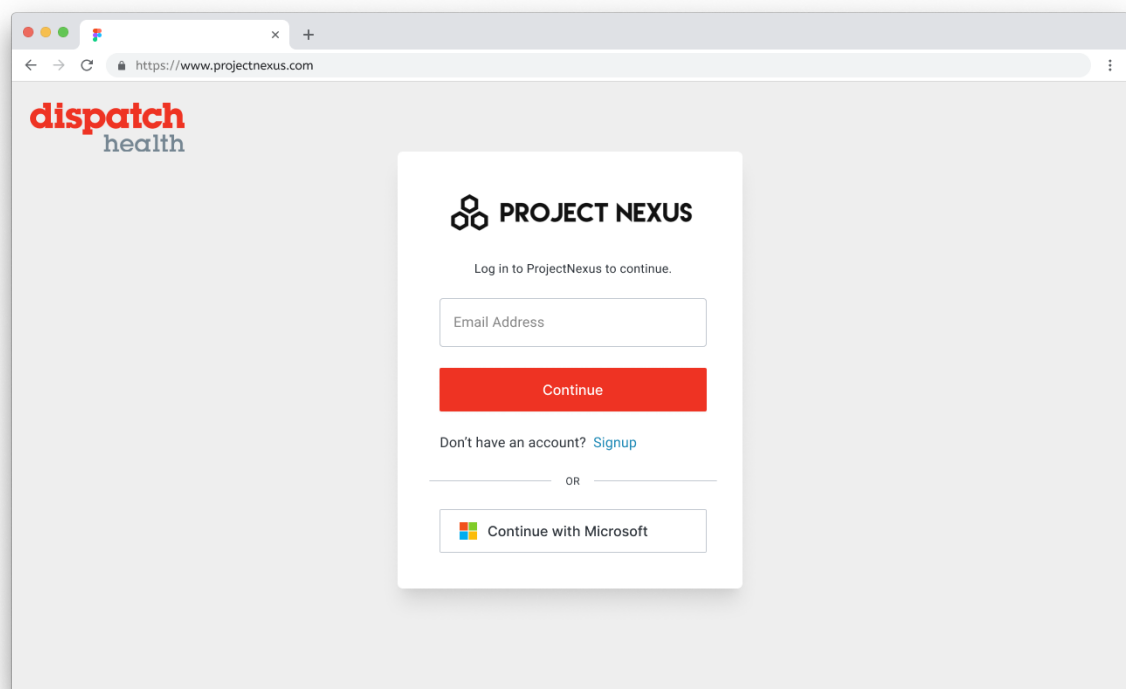
The data model will take into account future changes, like new fields added for better metrics and new user privileges.

Site map

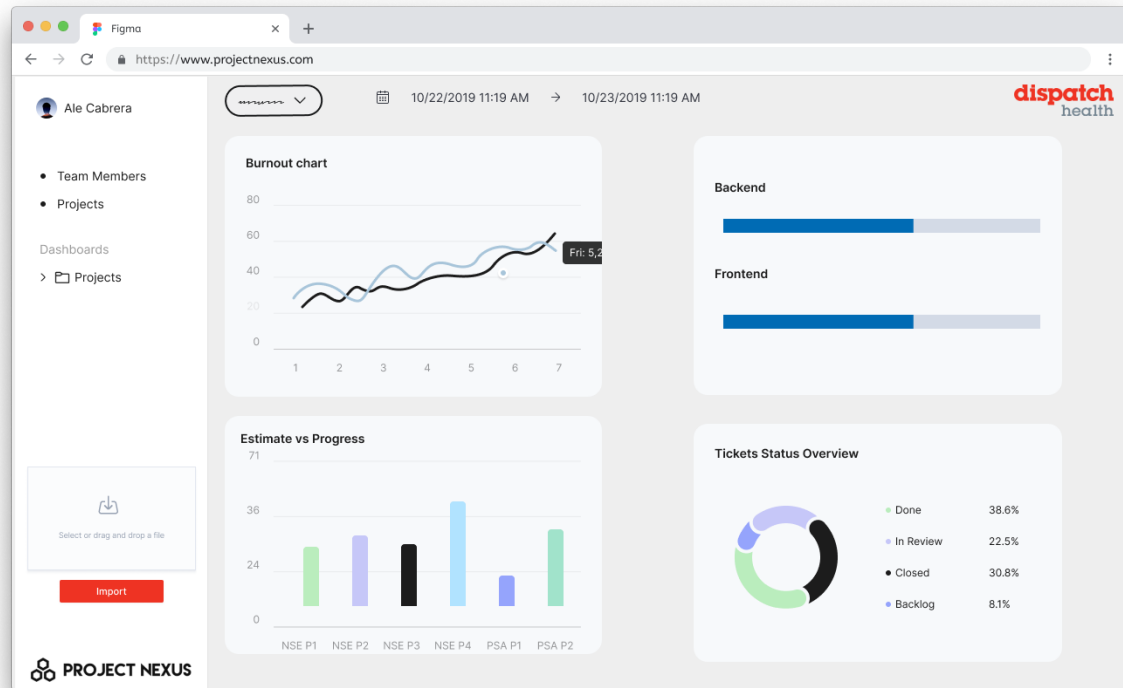
[Link](#)

Wireframe

1. U.C 03: Authentication.



2. U.C 02: Visualize Dashboard.



3. U.C 05: Assign Member to project

The screenshot displays the 'Team members' page in Project Nexus. The page includes a search bar and a table of team members. The table has columns for Artist, Development Team, Weekly AP, and Projects. The data is as follows:

Artist	Development Team	Weekly AP	Projects
Bernardo	Frontend	2	NSE, PSA
Luis	Backend	4	NSE
Antonio	Frontend	4	PSA
Kevin	Backend	6	NSE
Gio	Frontend	7	NSE
Teo	Backend	3	NSE

The page also includes a 'Create member' button, a 'Modify Weekly AP' button, and a search bar. The Project Nexus logo is visible in the bottom left corner.

Communication Plan

Description	Frequency	Channel
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Project status updates	As needed - weekly	In person, WhatsApp
Project team meetings	4 times a week	In person, Zoom
Meeting with client	Weekly	Zoom (time to be confirmed)

Work Plan

The updated work plan for week two and three is formed by the responsibility assignment matrix (RAM) and tasks distribution table.

N	Actividad	Karla	Chava	Alejandra	Daniel	Carlos	Azul	Pablo
Avance 1								
1	Datos del integrante e identificar fortalezas de cada uno	R	R	R	R	R	R	R
2	Listado de logros y compromisos	R	R	R	R	R	R	R
3	Razón social y logotipo		R					
4	Identidad corporativa				R		R	
5	Alcance organizacional							
6	Descripción del problema			R		R		
7	Requerimientos de información	A	R	A	R	A	R	R
8	Plan de trabajo Avance 1 y 2	R	C	R	C	R	C	C
9	Canal de comunicación	R		A				
Avance 2								
10	Junta de división de responsabilidades	I	I	R	I	I	I	I
11	Diagrama de contexto						R	A
12	Diagrama de casos de uso	A	R	A	A	A	A	A
13	Definir la jerarquía de los requisitos		A	R	A			
14	Diagrama de actividad de cada uno	R	R	R	R	R	R	R
15	Identificar reglas de negocio	R				A		
16	Desarrollar el modelo Ent-Rel	R	R	R	R	R	R	R
17	Relacionar base de datos	R	R	R	R	R	R	R
18	Requisitos no funcionales	A						R
19	Crear el mapa de sitios			A	R			
20	Diseñar una propuesta de interfaces	A	A	A	A	R	A	A
21	Diseñar plan de comunicación		A				R	