DELIVERABLE 4: CONCEPTUAL SCHEMA - DATA SCIENTIST

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Stakeholder
<Role>
Contains
Works
on
Analyst
<Role>
Discourse-based
opportunity
modeling
Opportunity
Controlled
Dialog
Digital
Files
Elicitation
Cards
Organizational
chart
Software context
<phase>
Contains
Explore
Possibilities
Understand
stakeholder
needs
Review
Documentation
Conduct
stakeholder
interview
Identify
Organizational
Agents
Identify
Organizational
Processes
Establish a
common
vocabulary
Verify
consistency
Analysis
Stakeholder
representation

Works on
Analyst
<Role>
Visual modeling of requirements
Requirements
Domain model
Pre-conceptual schema
Executable pre-conceptual schemas
Document traceability table
Understand the requirements
Establish a common vocabulary
Structure the organizational information
Verify Consistency
Contains
Software context
<Phase>
Analysis

Works on
Analyst
<Role>
Continuous control of the work
Work
Kanban board
Alpha advance report
Evidence of the meetings
Software context
<Phase>
Contains
Coordinate activity
Assign tasks
Report progress of the work
Management

Proven engagment of the stakeholders
Stakeholders
Stakeholder survey
Works on
Stakeholder <Role>
Understand stakeholder needs
Request stakeholder survey
Contains
Problem Analysis <Phase>
Stakeholder representation

Analyst
<Role>
Works on
Visual modeling of requirements
Requirements
Proces diagram
Event interaction graph
Undersatand the requirements
Define process and sequence
Contains
Problem Analysis
<Phase>
Verify consistency
Analysis

Analyst
<Role>
Works on
Template-based elicitation of requirements
Requirements
Process diagram explanatory table
Data dictionary
Business rules
Understand the requirements
Define process and sequence
Define constraints to the process
Verifiy consistency
Contains
Problem Analysis
<Phase>
Analysis

Analyst
<Role>
Works on
Visual modeling of requirements
Requirements
Goal diagram
Cause-and-effect-diagram
Pre-conceptual schema
Problem-based pre-conceptual schema
Understand the requirements
Elicit goals
Elicit problems
Verify consistency
Contains
Problem Analysis
<Phase>
Analysis

Works on
Analyst
<Role>
Template-based elicitation of requirements
Requirements
Percentage assignment to goals
Percentage assigment to problems
Understand the requirements
Elicit goals
Elicit problems
Verify consistency
Contains
Problem Analysis
<Phase>
Analysis

Works on
Analyst
<Role>
Continuous control of the work
Team
Way of working
Method assesment template
Team charter
Contains
Track progress
Assess the way of working
Assess the team
Problem Analysis
<Phase>
Management

Works on
Analyst <Role>
Continuous control of the work
Work
Kanban board
Alphas advance report
Evidences of the meetins
Contains
Coordinate activity
Assign tasks
Problem Analysis <Phase>
Report progress of the work
Management

Works on
Analyst
<Role>.
Visual modeling of requirements
Requirements
Use cases
User interface flowchart
New Organizational chart
New Process diagram
Understand the requirements
Specify the functionality of the system software
Adapt the existing domain to the solution
Verify consistency
Contains
Solution proposals
<Phase>
Analysis

Works on
Analyst
<Role>.
Template-based elicitation of requirements
Requirements
Use cases explanatory tables
New Process diagram explanatory table
New Data dictionary
Understand the requirements
Specify the functionality of the system software
Adapt the existing domain to the solution
Verify consistency
Contains
Solution proposals
<Phase>
Analysis

Proven stakeholder engagement
Stakeholders
Analyst <Role>.
Works on
User story agreement
Ensure stakeholder satisfaction
Signing of agreement
Contains
Solution proposals <Phase>
Representation of the stakeholder

Works on
Analyst
<Role>.
Evaluation of measurement-based opportunity
Opportunity
Solution effort
Solution value
Critical success factors matrices
Interpretive structural model
KPI definition table
KPI design
Understanding the needs of the stakeholder
Estimate the required team effort
Contains
Ensuring user satisfaction
Estimate the value of the solution
Solution proposals
<Phase>
Estimating critical success factors
Analysis
Define KPIs
Design KPIs
Representation of the stakeholder
Verify consistency

Works on
Developer
<Role>.
Iterative development of the software system
Software system
Alpha prototype
Shaping the system
Software system development
Contains
Solution proposals
<Phase>
Development

Works on
Analyst
<Role>.
Continuous work control
Way of working
Work product cards
Contains
Process traceability
Evaluate the way of working
Solution proposals
<Phase>
Management

Works on
Analyst
<Role>.
Continuous work control
Work
Kanban board
Alphas advance report
Evidence of meetings
Contains
Coordinated Activity
Assign tasks
Report project progress
Solution proposals
<Phase>
Management

Developer
<Role>
Works on
Iterative development of the software
Software system
Beta prototype
Source code examples
Shape the system
Develop the software system
Contains
Conceptual schema
<Phase>
Development

Works on
Analyst
<Role>
Visual modeling of requirements
Requirements
PS-bases specifications
Class diagram
Communication diagrams
State-machine diagrams
Understand the requirements
Especify the functionality of the software system
Contains
Conceptual schema
<Phase>
Analysis
Verify consistency

Works on
Analyst
<Role>
Continuous control of the work
Team
Way of working
Lessons learned register
Contains
Track progress
Identify lessons learned
Conceptual schema
<Phase>
Management

Works on
Analyst
<Role>
Continuous control of the work
Work
Kanban board
Alpha advance report
Evidences of the meetings
Contains
Coordinate activity
Assign tasks
Conceptual schema
<Phase>
Report progress of the work
Management

DIGITAL FILES

BACK

Option 1:

https://drive.google.com/drive/folders/1YkQ115wx5qaZQPMVM55TKLfjzOK2vc2U?usp=sharing

Option 2:

https://drive.google.com/drive/folders/18KEbRElaHxSbiCZtfsCLBqiPhlrmScvo?usp=sharing

CONTROLLED DIALOGUE

BACK

Analyst: Good morning. With this interview, we aim to clarify the information concerning the problem domain in which we will work. Please answer the questions in the clearest way possible.
Stakeholder: O.k. Let 's start.

Analyst: What is your role within the organization?
Stakeholder: I play the role of Data Scientist.

Analyst: Please, list the internal/external actors linked to the activities of your organization.
Stakeholder: We have users, employees, clients, data scientists, administrators and stakeholders.

Analyst: Who can play the role of a user?
Stakeholder: An employee, a stakeholder and an administrator.

Analyst: Who can play the role of an employee?
Stakeholder: A data scientist.

Analyst: Would you please mention some characteristics of users?
Stakeholder: They have name, e-mail, password, role and unique identification.

Analyst: Would you please mention some characteristics of employee?
Stakeholder: They have job title and experience.

Analyst: Would you please mention some characteristics of data scientists?
Stakeholder: They have background and style.

Analyst: Please list the main functions of a stakeholder.
Stakeholder: He/she provides data.

Analyst: Please list the main functions of the administrator.
Stakeholder: The administrator creates, edits and deletes users.

Analyst: Please list the main functions of the data scientists.
Stakeholder: The data scientist; evaluates user requirements, cleans data, extracts summary, determines model, builds applications, updates model, releases result and evaluates result.

Analyst: Are these functions gathered in some sort of responsibility?
Stakeholder: Yes, creates, edits and deletes users are gathered as “manage users”; cleans data and extracts summary are gathered as “pre-process data”; determines model, builds application and updates model are gathered as “process data”; releases and evaluates result are gathered as “post-process data”.

Analyst: Would you please mention some features of the data?
Stakeholder: Each data has version, file, type, classification, creation date, update date, description, size, format, quality, summary, application and unique name.

Analyst: Would you please mention some features of the model?
Stakeholder: It has type, application and unique name.

Analyst: Would you please mention some features of the application?
Stakeholder: It has version, creation date, tool, version control system, update date and solution.

Analyst: Would you please mention some features of the project?
Stakeholder: It has status, start date, end date, pre-processing tool, solution validation, users, user requirements, data and result.

Analyst: Would you please mention some features of the result?
Stakeholder: It has update date, file, creation date, version, type and feedback.

Analyst: : Which of the mentioned features have features themselves?
Stakeholder: Summary has validity, creation date, description and file; Solution has update date, file, description, version, creation date and performance; user requirement has a user story, description, status and a unique name; feedback has comment and date.

Analyst: Which values or instances can be associated to which feature?
Stakeholder: True and False are instances of validity; insight providers, modeling specialist, platform builder, polymath and team leader are instances of style; low and high are instances of quality; structured data and unstructured data are instances of type of data; attributes, database, images, video footage, audio and handwritten note are instances of format of data; finished and in progress are instances of project status; administrator, data scientist and stakeholder are instances of user role; git, dvc, codecommit and sourcetree are instances of version control system; deterministic and random are instances of data classification.

Analyst: What does the administrator need in order to accomplish the managing of users?
Stakeholder: He/she only needs user.role = administrator.

Analyst: What does the administrator need in order to accomplish the creation of an user?
Stakeholder: He/she only needs user.role = administrator and the arising of an user.

Analyst: What does the data scientist need in order to accomplish the evaluation of user requirement?
Stakeholder: He/she only needs the arising of user requirements.

Analyst: What does the stakeholder need in order to accomplish the providing of data?
Stakeholder: He/she only needs: user.role = stakeholder and, the arising of an stakeholder or summary validity = false.

Analyst: What does the data scientist need in order to accomplish the pre-processing of the data?
Stakeholder: He/she only needs: user.role = data scientist and project status = in progress

Analyst: What does the data scientist need in order to accomplish the cleaning of data?
Stakeholder: He/she only needs: user.role = data scientist, project status = in progress, the data be provided before by the stakeholder and data quality = low.

Analyst: What does the data scientist need in order to accomplish the extraction of the summary?
Stakeholder: He/she only needs: user.role = data scientist, project status = in progress, the data be provided before by the stakeholder and, data quality = high or the data be cleaned before.

Analyst: What does the data scientist need in order to accomplish the processing of the data?
Stakeholder: He/she only needs: user.role = data scientist.

Analyst: What does the data scientist need in order to accomplish the determination of a model?
Stakeholder: He/she only needs: user.role = data scientist and summary validity = true.

Analyst: What does the data scientist need in order to accomplish the building of an application?
Stakeholder: He/she only needs: user.role = data scientist and the model be determined before.

Analyst: What does the data scientist need in order to accomplish the updating of a model?
Stakeholder: He/she only needs: user.role = data scientist, the model be determined before and solution performance < project solution validation.

Analyst: What does the data scientist need in order to accomplish the post-processing of the data?
Stakeholder: He/she only needs: user.role = data scientist.

Analyst: What does the data scientist need in order to accomplish the release of a result?
Stakeholder: He/she only needs: user.role = data scientist, and solution performance >= project solution validation.

Analyst: What does the data scientist need in order to accomplish the evaluation of a result?
Stakeholder: He/she only needs: user.role = data scientist, and the appearance of feedback.

Analyst: Would you please establish some sort of sequence in the functions and responsibilities you have just described?
Stakeholder: First the data scientist evaluates the user requirements; then he waits for he stakeholder to show up, and then the stakeholder provides the data, then, in the pre-processing of the data, the data scientist cleans the data and then extracts a summary from the data; In the processing of the data the data scientist determines a model, then he can build and application or update the model; Last, in the post-processing of the data the data scientist releases the result and waits for feedback to be evaluated.

Analyst: What are the goals and problems associated with the function “extracts summary”?
Stakeholder: The goals are “Increasing the quality of data” and “Fostering data has summary”. The only problem is “Data scientist evaluates user requirements hardly”.

Analyst: What are the goals and problems associated with the function “cleans data”?
Stakeholder: The only goal is “Increasing the quality of data”. The only problems is “Stakeholder provides data wrongly”.

Analyst: What are the goals and problems associated with the function “provides data”?
Stakeholder: The only goal is “Ensuring project has data”. The only problems is “Stakeholder provides data wrongly”.

Analyst: What are the goals and problems associated with the function “determines model”?
Stakeholder: The only goal is “Obtaining the type of model”. The only problem is “data scientist does not have experience”.

Analyst: What are the goals and problems associated with the function “builds application”?
Stakeholder: The only goal is “Accomplishing application has solution”. The only problem is “Application does not have version control system”.

Analyst: What are the goals and problems associated with the function “updates model”?
Stakeholder: The goals are “Accomplishing application has solution” and “Enhancing the performance of the solution”. The only problem is “Application does not have version control system”.

Analyst: What are the goals and problems associated with the function “evaluates result”?
Stakeholder: The goals are “Conserving the end date of the project” and “Controlling the status of the project”. This function has no problems.

Analyst: What are the goals and problems associated with the function “releases result”?
Stakeholder: The only goal is “achieving the result”. This function has no problems.

Analyst: What are the goals and problems associated with the function “evaluates user requirements”?
Stakeholder: The only goal is “Obtaining the type of model”. The problems are “Data scientist does not have experience” and “Data scientist evaluates user requirements hardly”.

Analyst: What are the goals and problems associated with the function “creates user”?
Stakeholder: The only goal is “Maintaining the users”. This function has no problems.

Analyst: What are the goals and problems associated with the function “edits user”?
Stakeholder: The only goal is “Maintaining the users”. This function has no problems.

Analyst: What are the goals and problems associated with the function “deletes user”?
Stakeholder: The only goal is “Maintaining the users”. This function has no problems.

Analyst: Thank you for your valuable information. We will be in contact in order to clarify any doubts that may arise in this process.
Stakeholder: Thank you. I’ll be in touch.

BACK

ELICITATION CARDS

ACTOR	ANNOTATIONS
USER	
FEATURES: NAME, E-MAIL, PASSWORD, ROLE, and IDENTIFICATION is unique	

ACTOR	ANNOTATIONS
EMPLOYEE	
FEATURES: JOB TITLE, EXPERIENCE	EMPLOYEE can be USER

ACTOR	ANNOTATIONS
ADMINISTRATOR	
FEATURES:	ADMINISTRATOR can be USER

ACTOR	ANNOTATIONS
STAKEHOLDER	
FEATURES:	STAKEHOLDER can be USER

ACTOR	ANNOTATIONS
DATA SCIENTIST	
FEATURES: BACKGROUND, STYLE	DATA SCIENTIST can be EMPLOYEE

FUNCTION	
EXTRACTS	
ACTOR	DATA SCIENTIST
OBJECT	SUMMARY
CONSTRAINT	
USER.ROLE = DATA SCIENTIST and PROJECT.STATUS = IN PROGRESS and ((DATA.QUALITY = HIGH and STAKEHOLDER PROVIDES DATA) or DATA SCIENTIST CLEANS DATA)	

GOAL	PROBLEM
- **G10**: Increasing the quality of data - **G6**: Fostering data has summary	**C1 :** DATA SCIENTIST evaluates USER REQUIREMENTS hardly

FUNCTION	
CLEANS	
ACTOR	DATA SCIENTIST
OBJECT	DATA
CONSTRAINT	
USER.ROLE = DATA SCIENTIST and PROJECT.STATUS = IN PROGRESS and (DATA.QUALITY = HIGH and STAKEHOLDER PROVIDES DATA)	

GOAL	PROBLEM
G10: Increasing the quality of data	**C3 :** STAKEHOLDER provides DATA wrongly

FUNCTION	
PROVIDES	
ACTOR	STAKEHOLDER
OBJECT	DATA
CONSTRAINT	
(SUMMARY.VALIDITY = FALSE and USER.ROLE = STAKEHOLDER) or (STAKEHOLDER SHOWS UP and USER.ROLE = STAKEHOLDER)	

GOAL	PROBLEM
G11: Ensuring project has data	**C3 :** STAKEHOLDER provides DATA wrongly

FUNCTION	
DETERMINES	
ACTOR	DATA SCIENTIST
OBJECT	MODEL
CONSTRAINT	
SUMMARY.VALIDITY = TRUE and USER.ROLE = DATA SCIENTST	

GOAL	PROBLEM
G8 : Obtaining the type of model.	**C5 :** DATA SCIENTIST does not have EXPERIENCE

FUNCTION	
BUILDS	
ACTOR	DATA SCIENTIST
OBJECT	APPLICATION
CONSTRAINT	
USER.ROLE = DATA SCIENTIST and DATA SCIENTIST DETERMINES MODEL	

GOAL	PROBLEM
G2 : Accomplishing application has solution	**C4 :** APPLICATION does not have VERSION CONTROL SYSTEM

FUNCTION	
UPDATES	
ACTOR	DATA SCIENTIST
OBJECT	MODEL
CONSTRAINT	
USER.ROLE = DATA SCIENTST and SOLUTION.PERFORMANCE < PROJECT.SOLUTION VALIDATION and DATA SCIENTIST DETERMINES MODEL	

GOAL	PROBLEM
- **G2 :** Accomplishing application has solution - **G3 :** Enhancing the performance of the solution	**C4 :** APPLICATION does not have VERSION CONTROL SYSTEM

FUNCTION	
EVALUATES	
ACTOR	DATA SCIENTIST
OBJECT	RESULT
CONSTRAINT	
FEEDBACK APPEARS and USER.ROLE = DATA SCIENTIST	

GOAL	PROBLEM
- **G4 :** Conserving the end date of the project - **G5 :** Controling the status of the project	

FUNCTION	
RELEASES	
ACTOR	DATA SCIENTIST
OBJECT	RESULT
CONSTRAINT	
USER.ROLE = DATA SCIENTIST and SOLUTION.PERFORMANCE >= PROJECT.SOLUTION VALIDATION	

GOAL	PROBLEM
G1 : Achieving the result	

FUNCTION	
EVALUATES	
ACTOR	DATA SCIENTIST
OBJECT	USER REQUIEREMENT
CONSTRAINT	
USER REQUIREMENT ARISES	

GOAL	PROBLEM
G8 : Obtaining the type of model.	- **C5 :** DATA SCIENTIST does not have EXPERIENCE - **C1 :** DATA SCIENTIST evaluates USER REQUIREMENTS hardly

FUNCTION	
CREATES	
ACTOR	ADMISTRATOR
OBJECT	USER
CONSTRAINT	
USER ARISES and USER.ROLE = ADMINSTRATOR	

GOAL	PROBLEM
G7 : Maintaining the users	

FUNCTION	
EDITS	
ACTOR	ADMISTRATOR
OBJECT	USER
CONSTRAINT	
USER.ROLE = ADMINISTRATOR and ADMINISTRATOR CREATES USER	

GOAL	PROBLEM
G7 : Maintaining the users	

FUNCTION	
DELETES	
ACTOR	ADMISTRATOR
OBJECT	USER
CONSTRAINT	
USER.ROLE = ADMINISTRATOR and ADMINISTRATOR CREATES USER	

GOAL	PROBLEM
G7 : Maintaining the users	

OBJECT	ANNOTATIONS
DATA	
FEATURES: NAME is unique, VERSION, FILE, TYPE, CLASSIFICATION, CREATION DATE, UPDATE DATE, DESCRIPTION, SIZE, FORMAT, QUALITY	DATA is related to SUMMARY and APPLICATION

OBJECT	ANNOTATIONS
SUMMARY	
FEATURES: VALIDITY, CREATION DATE, DESCRIPTION, FILE	

OBJECT	ANNOTATIONS
APPLICATION	
FEATURES: VERSION, CREATION DATE, TOOL, VERSION CONTROL SYSTEM, UPDATE DATE	APPLICATION is related to SOLUTION

OBJECT	ANNOTATIONS
SOLUTION	
FEATURES: UPDATE DATE, FILE, DESCRIPTION, VERSION CREATION DATE, PERFORMANCE	

OBJECT	ANNOTATIONS
MODEL	
FEATURES: TYPE, NAME is unique	MODEL is related to APPLICATION

OBJECT	ANNOTATIONS
USER REQUIEREMENT	
FEATURES: CODE is unique, USER STORY, DESCRIPTION, STATUS	

OBJECT	ANNOTATIONS
PROJECT	
FEATURES: NAME is unique, STATUS, START DATE, END DATE PRE-PROCESING TOOL, SOLUTION VALIDATION	PROJECT is related to USER, USER REQUIEREMENT, DATA and RESULT

OBJECT	ANNOTATIONS
RESULT	
FEATURES: UPDATE DATE, FILE, CREATION DATE, VERSION, TYPE	RESULT is related to FEEDBACK

OBJECT	ANNOTATIONS
FEEDBACK	
FEATURES: COMMENT, DATE	

ORGANIZATIONAL CHART

BACK

Goals:

Ensuring project has data
Increasing the quality of data
Fostering the feedback
Obtaining the type of the model
Accomplishing application has solution
Enhancing the performance of the solution
Conserving the end date of the project
Controlling the status of the project
Fostering data has summary
Maintaining the users
Achieving the result

Problem Area:
Chief information officer (CIO), Business Analyst, User Experience Designer, Data Scientist, Database administrator, Cloud architect and Administrator

Responsibilities:

Manages users
Pre-process data
Process data
Post-process data

PRE-CONCEPTUAL SCHEMA WITH ACHIEVEMENT SETS

BACK

DOCUMENT TRACEABILITY TABLE (PRE-CONCEPTUAL SCHEMA WITH ACHIEVEMENT SETS)

BACK

Original sound/Image/Text	Source	Location	Element	Kind of element	Observations
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 12:32	Data has unique name	Structural triad	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 12:33	Data has version Data has file Data has creation date Data has update date Data has description Data has size	Structural triad	The stakeholder agreed
Meeting with stakeholder data scientist Carlos Alberto Álvarez Henao	Video	interview_data_scientist.mkv 40:02	Data has classification	Structural triad	- When he says: "whether I am working with deterministic data or random data" we infer that Data can be have classification
An aspect which several mentioned was the lack of metrics that would enable the quality of the data to be assessed beforehand.	Text	On Understanding Data Scientists, Page 3, Paragraph 2	Data has quality	Structural triad	We can infer that "quality of the data" refers to Data has a quality
This data can be in a variety of formats, such as structured (attributes in a database) or unstructured data (images, video footage, audio, handwritten notes).	Text	On Understanding Data Scientists, Page 1, Paragraph 2	Data has type Data has format	Structural triad	-We can infer "structured" and "unstructured data" ca be two different type of Data. -We can infer that each of the formats has its own format.
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 17:34	Data has summary	Structural triad	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 17:38	Summary has validity Summary has creation date Summary has description Summary has file	Structural triad	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 10:50	Stakeholder is user	Structural triad	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 8:10	Employee is user	Structural triad	The stakeholder agreed
Meeting with stakeholder data scientist Carlos Alberto Álvarez Henao	Video	interview_data_scientist.mkv 05:56	Administrator is user	Structural triad	The stakeholder agreed
Chris Wiggins is the Chief Data Scientist at The New York Times	Text	Data Scientists at Work, Page 1, Paragraph 1	Data Scientist is employee	Structural triad	- We infered that the Data Scientist is employee of a company, in this case "The New York Times"
We see that the vast majority ideally pursue people with a background in Engineering, Computer Science, Mathematics, Statistics, Physics, and other related fields	Text	On Understanding Data Scientists, Page 1, Paragraph 5	Data Scientist has background	Structural triad	- We interpret from the context of the article that "people" refers to data scientist
The authors characterized the roles of data scientists in a large software company and explored various working styles of data scientists, having identified five different styles (insight providers, modeling specialists, platform builders, polymaths, and team leaders)	Text	On Understanding Data Scientists, Page 2, Paragraph 5	Data Scientist has style	Structural triad	- We interpret from the context of the article that "working style" refers to data scientist have a working style in you role in a company
Smallwood draws on her broad technical expertise in experimentation, analytics, and recomendations acquired over the course of more than twenty years of experience	Text	Data Scientists at Work, Page 19, Paragraph 2	Employee has experience	Structural triad	- We interpret form the context of the article that Smallwood is an employee in the companies in which it works - We interpret that "more than twenty years of experience" refers to an employee have experiencie
Claudia Perlich is the Chief Scientist at Dstillery	Text	Data Scientists at Work, Page 151, Paragraph 1	Employee has job title	Structural triad	- We interpret that "Chief Scientist" is her job title at that company in which her works
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 4:49	User has unique identification	Structural triad	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 4:49	User has name User has E-mail User has password User has role	Structural triad	The stakeholder agreed
Meeting with stakeholder data scientist Carlos Alberto Álvarez Henao	Video	interview_data_scientist.mkv 14:36	Project has user	Structural triad	- When he says: "depends on the type of project you have" we infer that there is a project in which work is being done - When he says: "depends on the type of project you have" we infer that there is a person that work on a project so we interpret that this persons are users
Meeting with stakeholder data scientist Carlos Alberto Álvarez Henao	Video	interview_data_scientist.mkv 23:54	Project has unique name	Structural triad	The stakeholder agreed
Meeting with stakeholder data scientist Carlos Alberto Álvarez Henao	Video	interview_data_scientist.mkv 23:55	Project has status Project has start date Project has end date Project has pre-processing tool Project has solution validation	Structural triad	The stakeholder agreed
Meeting with stakeholder data scientist Carlos Alberto Álvarez Henao	Video	interview_data_scientist.mkv 14:36	Project has data	Structural triad	When he says: "I am working for an environmental company and I hope that the data you provide me with" we interpre from the context of the interview that "working for ar an enviroment company" refers to a project and this project hava data
spend time studying model results and iterating on models	Text	Data Scientists at Work, Page 7, Paragraph 1	Project has result	Structural triad	We interpret from the context of the article that "model results" can be interpreted as a project on which the Data Scientist is working has a solution
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 11:31	Project has user requirement	Structural triad	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 23:54	Result has update date Result has file Result has creation date Result has version Result has type	Structural triad	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 26:20	Result has feedback	Structural triad	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 26:46	Feedback has comment Feedback has date	Structural triad	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 11:44	User requirement has unique code	Structural triad	The stakeholder agreed
Structural triad	Diagram	https://drive.google.com/file/d/1REFHDtXkNuD_7WcOZBCgdtqi1YVMg-0O/view?usp=sharing , business analyst pre-conceptual diagram	User requirement has user story User requirement has description User requirement has status	Structural triad	This information was taken from the work of another team in the requirements engineering course.
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 11:41	Model has unique name	Structural triad	
"Vamos a poder proceder a elegir un modelo matemático este modelo puede ser un modelo algebraico o estadístico"	Video	https://www.youtube.com/watch?v=Bl2sBiVdZHs, minute 2:09 Platzi - ¿Qué hace un Data Scientist?	Model has type	Structural triad	-We can interpret from the context of the video that "puede ser un modelo algebraico o estadístico" that a model can have various names
I usually can start by asking: How predictive is this model that we've built?	Text	Data Scientists at Work, Page 7, Paragraph 1	Model has application	Structural triad	- We can interpret from the context of the article that "How predictive is this model" refers to to a model can be applied to a different levels of prediction for a specific problem
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 20:25	Data has application	Structural triad	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 20:48	Application has version Application has creation date Application has tool Application has version control system Application has update date	Structural triad	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 21:52	Application has solution	Structural triad	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 21:56	Solution has update date Solution has file Solution has description Solution has version Solution has creation date Solution has performance	Structural triad	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 11:05	Stakeholder provides data	Dynamic triad	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 6:22	Administrator creates user	Dynamic triad	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 6:36	Administrator edits user Administrator deletes user	Dynamic triad	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 17:31	Data Scientist extracts summary	Dynamic triad	The stakeholder agreed
Meeting with stakeholder data scientist Carlos Alberto Álvarez Henao	Video	interview_data_scientist.mkv 30:20	Data Scientist cleans data	Dynamic triad	When he says: "He cleans it only once" by the context of the recording he means that as a data scientist he cleans the data.
Meeting with stakeholder data scientist Carlos Alberto Álvarez Henao	Video	interview_data_scientist.mkv 39:26	Data Scientist builds application	Dynamic triad	- When he says: "the construction of the model" by the context of the recording we interpret that a Data Scientist builds a model that is applied to a requirement - We infer from the context of the interview that the construction of the model can use a lot of data this refers to application
Meeting with stakeholder data scientist Carlos Alberto Álvarez Henao	Video	interview_data_scientist.mkv 36:47	Data Scientist updates model	Dynamic triad	- When he says: "is the base model and then you add to it ..." by the context of the recording we infer that Data Scientist updates model
Meeting with stakeholder data scientist Carlos Alberto Álvarez Henao	Video	interview_data_scientist.mkv 35:44	Data Scientist determines model	Dynamic triad	-When he says "In your model when you already get it " we infer from the context of the interview that Data Scientist Determinates a model
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 11:42	Data Scientist evaluates user requirement	Dynamic triad	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 25:40	Data Scientist releases result	Dynamic triad	
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 26:23	Data Scientist evaluates result		
Meeting with stakeholder data scientist Carlos Alberto Álvarez Henao	Video	interview_data_scientist.mkv 06:10	Administrator manages user	Responsibility	The stakeholder agreed
Meeting with stakeholder data scientist Carlos Alberto Álvarez Henao	Video	interview_data_scientist.mkv 45:25	Data Scientist pre-process data Data Scientist process data Data Scientist post-process data	Responsibility	- He says: "basically three stages one is the preprocessing which is everything that has to involve the data, the processing... and then there is the post processing." we interpret that Data Scientist have this three responsabilities
This data can be in a variety of formats, such as structured (attributes in a database) or unstructured data (images, video footage, audio, handwritten notes).	Text	On Understanding Data Scientists, Page 1, Paragraph 2	TYPE: -structured data -unstructured data	Note	
This data can be in a variety of formats, such as structured (attributes in a database) or unstructured data (images, video footage, audio, handwritten notes).	Text	On Understanding Data Scientists, Page 1, Paragraph 2	FORMAT: -STRUCTURED DATA: -attributes -database -UNSTRUCTURED DATA: -images -video footage -audio -handwritten note	Note	
quality of the data	Text	On Understanding Data Scientists, Page 3, Paragraph 11	QUALITY -High -Low	Note	- We inferred that qualita has amount because it can be measured in low or high
Meeting with stakeholder data scientist Carlos Alberto Álvarez Henao	Video	interview_data_scientist.mkv 40:02	CLASSIFICATION: -Random -Deterministic	Note	- When he says: "whether I am working with deterministic data or random data" we infer that Data can be have classification
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 17:48	VALIDITY: -true -false	Note	
Meeting with stakeholder data scientist Carlos Alberto Álvarez Henao	Video	interview_data_scientist.mkv 05:06	ROLE: -Administrator -Data Scientist -Stakeholder	Note	
Meeting with stakeholder data scientist Carlos Alberto Álvarez Henao	Video	interview_data_scientist.mkv 24:00	STATUS: -Finished -In progress	Note	
The authors characterized the roles of data scientists in a large software company and explored various working styles of data scientists, having identified five different styles (insight providers, modeling specialists, platform builders, polymaths, and team leaders)	Text	On Understanding Data Scientists, Page 2, Paragraph 5	STYLE: -Insight providers -Modeling specialists -Plataform builder -Polymath -Team leader	Note	
The adoption of such ML platform depends on the cloud strategy of the organization. In case, when an in-house hosted solution for MLOps is preferred, non-cloud systems like MLFlow, Sacred, or DVC might be a tool of choice		https://ml-ops.org/content/state-of-mlops, MLOps Infrastructure Stack	VERSION CONTROL SYSTEM: -Git -DVC -Codecommit -Sourcetree	Note	
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 11:21	Stakeholder shows up	Event	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 6:27	User arises	Event	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 26:31	Feedback appears	Event	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 11:50	User requirement arises	Event	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 11:17	If User.role = Stakeholder	Conditional	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 18:02	If Summary.validity = false AND user.role = stakeholder	Conditional	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 07:36	If User.role = Administrator	Conditional	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 25:37	If Solution.performance >= project.solution_validation	Conditional	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 18:22	If User.role = DataScientist	Conditional	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 17:05	If Summary.validity = true	Conditional	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 22:20	If Solution.performance < project.solution_validation	Conditional	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 14:31	If Data.quality = low	Conditional	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 18:19	If Project.status = in progress	Conditional	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 14:31	If Data.quality = high	Conditional	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 14:32	If Stakeholder shows up AND User.role = Stakeholder, then Stakeholder provides Data	Implication	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 18:02	If Summary.validity = false AND user.role = stakeholder, then Stakeholder provides Data	Implication	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 6:29	If User arises, then Administrator creates User	Implication	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 7:50	If User.role = Administrator, then Administrator manages User	Implication	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 6:37	If Administrator creates User, then Administrator edits User OR Administrator deletes User	Implication	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 16:50	If Stakeholder provides Data, then Data.quality = low OR Data.quality = high	Implication	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 14:32	If Stakeholder provides Data AND Data.quality = low, then Data Scientist cleans Data	Implication	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 17:32	If Stakeholder provides Data AND Data.quality = high, then Data Scientist extracts Summary	Implication	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 17:30	If Data Scientist cleans Data, then Data Scientist extracts Summary	Implication	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 18:16	If User.role = Data Scientist AND Projecto.status = In Progress then Data Scientist pre-process Data	Implication	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 22:15	If Solution.performance < project.solution_validation, then Data Scientist updates model	Implication	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 18:42	If User.role = Data Scientist , then Data Scientist process Data	Implication	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 18:57	If summary.validity = true, then Data Scientist determines Model	Implication	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 18:48	If Data Scientist determines Model, then Data Scientist build Application OR Data Scientist updates Model	Implication	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 11:46	If User requirement arises, then Data Scientist evaluates User requirement	Implication	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 25:37	If User.role = Data Scientist, then Data Scientist post-process data	Implication	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 26:35	If feedback appears, then Data Scientist evaluates result	Implication	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 25:39	If Solution.performance >= project.solution_validation, then Data Scientist releases result	Implication	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 37:31	Fostering the users be managed	Requirement	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 37:35	Maintaining the users	Goal	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 36:44	Making the data be pre-processed	Requirement	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 34:28	Making the data be processed	Requirement	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 34:03	Keeping the application be updated	Requirement	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 34:38	Obtaining the type of the model	Goal	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 34:17	Enhancing the performance of the solution	Goal	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 34:11	Accomplishing application has solution	Goal	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 36:35	Improving the data be provided	Requirement	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 36:48	Ensuring project has data	Goal	The stakeholder agreed
In order to increase data quality	Text	On Understanding Data Scientists, Page 3, Paragraph 7	Increasing the quality of data	Goal	
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 37:08	Fostering data has summary	Goal	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 35:45	Controling the status of the project	Goal	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 35:47	Conserving the end date of the project	Goal	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 37:44	Achieving the result	Goal	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 35:35	Fostering the feedback	Goal	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 34:58	Improving the user requirements be evaluated	Requirement	The stakeholder agreed
Meeting with Stakeholder Data Scientist Juan Camilo Jaramillo Tascón	Video	entrevista_2.mkv 35:21	Making the data be post-processed	Requirement	The stakeholder agreed

EXECUTABLE PRE-CONCEPTUAL SCHEMAS

BACK

#1

#2

=
USER
ROLE
STAKEHOLDER
NAME = "Users data"
VERSION = 1.0
FILE = users_data.jpg
TYPE = UNSTRUCTURED DATA
CLASSIFICATION = DETERMINISTIC
CREATION DATE = 13/04/2021
DESCRIPTION = "This file contains the information about users of Netflix, with diferent atributtes"
SIZE = 1.7 GB
FORMAT = IMAGES
QUALITY = LOW
HAS_UNIQUE
HAS
STAKEHOLDER
SHOWS UP
AND
=
=
SUMMARY
VALIDITY
STAKEHOLDER
USER
ROLE
FALSE
DATA
PROVIDES
STAKEHOLDER
IS
USER
HAS
NAME = "CARLOS PEREZ"
E-MAIL = cperez@netf.co
PASSSWORD = *******
ROLE = STAKEHOLDER
HAS_UNIQUE
IDENTIFICATION = 1008940396

#3

=
DATA
QUALITY
LOW
=
USER
ROLE
DATA SCIENTIST
=
PROJECT
STATUS
IN PROGRESS
NAME = "Users data (cleaned)"
VERSION = 2.0
FILE = users_data.db
TYPE = STRUCTURED DATA
CLASSIFICATION = DETERMINISTIC
CREATION DATE = 13/04/2021
DESCRIPTION = "This file contains the information about users of Netflix, with diferent atributtes"
SIZE = 1.5 GB
FORMAT = DATABASE
QUALITY = HIGH
UPDATE DATE = 01/05/2022
HAS_UNIQUE
HAS
DATA
CLEANS
JOB TITLE = DATA ANALYST
EXPERIENCE = 5 YEARS
HAS
EMPLOYEE
IS
HAS
DATA SCIENTIST
IS
USER
BACKGROUND = STASTISTICS
STYLE = MODELING SPECIALIST
NAME = "FREDY OROZCO"
E-MAIL = forozcol@netf.co
PASSSWORD = *******
ROLE = DATA SCIENTIST
HAS
IDENTIFICATION = 70402785
HAS_UNIQUE

#4

=
DATA
QUALITY
HIGH
=
USER
ROLE
DATA SCIENTIST
=
PROJECT
STATUS
IN PROGRESS
JOB TITLE = DATA ANALYST
EXPERIENCE = 5 YEARS
VALIDITY = TRUE
CREATION DATE = 03/05/2022
DESCRIPTION = "Descriptive statistics about users data"
FILE = user_data_summary.ipynb
HAS
SUMMARY
EXTRACTS
HAS
EMPLOYEE
IS
HAS
DATA SCIENTIST
IS
USER
BACKGROUND = STASTISTICS
STYLE = MODELING SPECIALIST
NAME = "FREDY OROZCO"
E-MAIL = forozcol@netf.co
PASSSWORD = *******
ROLE = DATA SCIENTIST
HAS
IDENTIFICATION = 70402785
HAS_UNIQUE

#5

=
SUMMARY
VALIDITY
TRUE
=
USER
ROLE
DATA SCIENTIST
TYPE = "Classification"
HAS
MODEL
DETERMINES
EMPLOYEE
IS
NAME = "user classification"
HAS_UNIQUE
HAS
DATA SCIENTIST
IS
USER
BACKGROUND = STASTISTICS
NAME = "FREDY OROZCO"
STYLE = MODELING SPECIALIST
E-MAIL = forozcol@netf.co
HAS
PASSSWORD = *******
ROLE = DATA SCIENTIST
IDENTIFICATION = 70402785
HAS_UNIQUE

#6

VALIDITY = TRUE
CREATION DATE = 03/05/2022
DESCRIPTION = "Descriptive statistics about users data"
FILE = user_data_summary.ipynb
HAS
SUMMARY
HAS
NAME = "Users data (cleaned)"
VERSION = 2.0
FILE = users_data.db
TYPE = STRUCTURED DATA
CLASSIFICATION = DETERMINISTIC
CREATION DATE = 13/04/2021
DESCRIPTION = "This file contains the information about users of Netflix, with diferent atributtes"
SIZE = 1.5 GB
FORMAT = DATABASE
QUALITY = HIGH
UPDATE DATE = 01/05/2022
HAS_UNIQUE
HAS
DATA
=
SUMMARY
VALIDITY
TRUE
=
USER
ROLE
DATA SCIENTIST
HAS
VERSION = 1.0
CREATION DATE = 25/05/2022
TOOL = Azure machine learning
VERSION CONTROL SYSTEM = GIT
HAS
APPLICATION
BUILDS
DATA SCIENTIST
HAS
BACKGROUND = STASTISTICS
STYLE = MODELING SPECIALIST
EMPLOYEE
IS
IS
USER
TYPE = "Classification"
HAS
MODEL
NAME = "user classification"
HAS_UNIQUE
NAME = "FREDY OROZCO"
E-MAIL = forozcol@netf.co
PASSSWORD = *******
ROLE = DATA SCIENTIST
HAS
IDENTIFICATION = 70402785
HAS_UNIQUE

#7

VALIDITY = TRUE
CREATION DATE = 03/05/2022
DESCRIPTION = "Descriptive statistics about users data"
FILE = user_data_summary.ipynb
HAS
SUMMARY
HAS
DATA
NAME = "Users data (cleaned)"
VERSION = 2.0
FILE = users_data.db
TYPE = STRUCTURED DATA
CLASSIFICATION = DETERMINISTIC
CREATION DATE = 13/04/2021
DESCRIPTION = "This file contains the information about users of Netflix, with diferent atributtes"
SIZE = 1.5 GB
FORMAT = DATABASE
QUALITY = HIGH
UPDATE DATE = 01/05/2022
HAS_UNIQUE
HAS
<
PROJECT
SOLUTION VALIDATION
SOLUTION
PERFORMANCE
=
USER
ROLE
DATA SCIENTIST
HAS
APPLICATION
UPDATES
DATA SCIENTIST
IS
EMPLOYEE
IS
USER
BACKGROUND = STASTISTICS
STYLE = MODELING SPECIALIST
HAS
VERSION = 2.0
UPDATE DATE = 15/06/2022
SOLUTION
HAS
TYPE = "Regression"
HAS
MODEL
NAME = "user classification"
HAS_UNIQUE
NAME = "FREDY OROZCO"
E-MAIL = forozcol@netf.co
PASSSWORD = *******
ROLE = DATA SCIENTIST
HAS
IDENTIFICATION = 70402785
HAS_UNIQUE
FILE = user_model_trained.py
DESCRIPTION = "Training time 10:07 min"
VERSION = 2.0
CREATION DATE = 25/05/2022
PERFORMANCE = 0.89
UPDATE DATE = 15/06/2022
HAS

#8

>=
SOLUTION
PERFORMANCE
PROJECT
SOLUTION VALIDATION
=
USER
ROLE
DATA SCIENTIST
BACKGROUND = STASTISTICS
STYLE = MODELING SPECIALIST
HAS
EMPLOYEE
IS
FILE = user_results.pdf
RELEASES
DATA SCIENTIST
IS
USER
CREATION DATE = 17/06/2022
NAME = "FREDY OROZCO"
VERSION = 1.0
HAS
RESULT
E-MAIL = forozcol@netf.co
HAS
PASSSWORD = *******
TYPE = "dashboard"
ROLE = DATA SCIENTIST
IDENTIFICATION = 70402785
HAS_UNIQUE

#9

=
USER
ROLE
DATA SCIENTIST
FEEDBACK
APPEARS
BACKGROUND = STASTISTICS
STYLE = MODELING SPECIALIST
HAS
EMPLOYEE
IS
FILE = user_results.pdf
EVALUATES
DATA SCIENTIST
IS
USER
CREATION DATE = 17/06/2022
NAME = "FREDY OROZCO"
VERSION = 1.0
HAS
RESULT
E-MAIL = forozcol@netf.co
HAS
TYPE = "dashboard"
PASSSWORD = *******
FEEDBACK
COMMENT = "The results you are showing us are not clear enough for our understanding"
ROLE = DATA SCIENTIST
IDENTIFICATION = 70402785
HAS_UNIQUE
HAS
DATE = 18/06/2022

#10

USER
ARISES
=
USER
ROLE
ADMINISTRATOR
CREATES
ADMINISTRATOR
IS
USER
HAS
HAS_UNIQUE
NAME = "FREDY OROZCO"
E-MAIL = forozcol@netf.co
PASSSWORD = *******
ROLE = DATA SCIENTIST
IDENTIFICATION = 70402785

#11

=
USER
ROLE
ADMINISTRATOR
EDITS
ADMINISTRATOR
IS
USER
HAS
NAME = "Fredy Orozco Loaiza"
E-MAIL = forozcol@unal.edu.co
PASSSWORD = **********

#12

DOMAIN MODEL

BACK

STAKEHOLDER SURVEY

BACK

PROJECT NAME	DATA SCIENTIST				
STAKEHOLDER NAME	CARLOS ALBERTO ALVAREZ HENAO				
DATE	06 / 04 / 2022				
CRITERIA	STRONGLY AGREE	AGREE	NEITHER	DISAGREE	STRONGLY DISAGREE
THE INFORMATION IS COMPLETE ACCORDING TO OUR MEETINGS	X				
THE WORK PRODUCTS I COULD REVIEW ARE CLEAR		X			
THE PROBLEM IS CLEARLY IDENTIFIED	X				
GOALS ARE RELATED TO THE ORGANIZATION	X				
THE SEQUENCE OF THE PROCESS IS ARTICULATED	X				
THE OVERAL QUALITY OF THE DELIVERABLES IS ADEQUATE		X			
SUGGESTIONS	- Include in the project the pre-processing, processing and post-processing of the data, grouping together the actions that were already in place. - To be able to determine the time taken for each of the data stages in a project.				
SIGNATURE					

STAKEHOLDER SURVEY

PROJECT NAME	DATA SCIENTIST				
STAKEHOLDER NAME	JUAN CAMILO JARAMILLO TASCÓN				
DATE	03/05/2022				
CRITERIA	STRONGLY AGREE	AGREE	NEITHER	DISAGREE	STRONGLY DISAGREE
THE INFORMATION IS COMPLETE ACCORDING TO OUR MEETINGS	X				
THE WORK PRODUCTS I COULD REVIEW ARE CLEAR		X			
THE PROBLEM IS CLEARLY IDENTIFIED		X			
GOALS ARE RELATED TO THE ORGANIZATION	X				
THE SEQUENCE OF THE PROCESS IS ARTICULATED	X				
THE OVERAL QUALITY OF THE DELIVERABLES IS ADEQUATE		X			
SUGGESTIONS	Include more leaf concepts				
SIGNATURE					

EVENT INTERACTION GRAPH

BACK

PROCESS DIAGRAM

BACK

PROCESS DIAGRAM EXPLANATORY TABLE

BACK

Name	Goal	Duration/Frequency	How?/Where?	Problems	Business rules	Events
P1: Creates User	G7 : Maintaining the users	5 minutes / 4 times a month	For each user, the personal information is registered. This process takes place were the software is developed.		BR1: ADMINSTRATOR MANAGE THE USER	- TE1: Role of the User was set to Administrator - TE2: User Arises
P2: Deletes User	G7 : Maintaining the users	2 minutes / once a month	Users have sometimes the need to quit the system. In such a case, the user is deleted. This process takes place were the software is developed		BR1: ADMINSTRATOR MANAGE THE USER	RE1: User Deleted
P3: Edits User	G7 : Maintaining the users	4 minutes / 9 times a month	This process takes place were the software is developed whenever the user information needs some adjustment		BR1: ADMINSTRATOR MANAGE THE USER	RE2: User Edited
P4: Evaluates user requirements	G8 : Obtaining the type of model.	24 hours / 2 times a month	When a project is developed, it comes with some user requirements that the data scientist must assess. This process takes place in the data scientist workspace	- C5 : DATA SCIENTIST does not have EXPERIENCE - C1 : DATA SCIENTIST evaluates USER REQUIREMENTS hardly	BR15:DATA SCIENTIST EVALUATES USER REQUIEREMENTS	- TE3: Role of the User was set to Data Scientist - TE4: User Requirement Arises - RE3: User Requirement Evaluated
P5: Provides Data	G11: Ensuring project has data	10 minutes / 2 times a month	It is very important that the stakeholder provides the data with which the data scientist will work. This process takes place in the data scientist workspace	C3 : STAKEHOLDER provides DATA wrongly	BR2:STAKEHOLDER PROVIDES DATA 1, BR3: STAKEHOLDER PROVIDES DATA 2	- TE5: Role of the User was set to Stakeholder - TE6: Stakeholder shows up - TE5: Role of the User was set to Stakeholder - TE7: Validity of Summary set to False
P6: Cleans Data	G10: Increasing the quality of data	36 hours / 2 times a month	In many cases, the data provided are not of the best quality, so it is necessary to clean and depurate them. This process takes place in the data scientist workspace	C3 : STAKEHOLDER provides DATA wrongly	BR9:DATA SCIENTIST CLEANS THE DATA	- TE9: Quality of Data set to Low - TE8: Status of Project set to In Progress - TE3: Role of the User was set to Data Scientist - RE4: Data Cleaned
P7: Extracts Summary	- G10: Increasing the quality of data - G6: Fostering data has summary	2 hours / 2 times a month	A summary of the data is necessary to see how the data behaves and to find relationships in it. This process takes place in the data scientist workspace	C1 : DATA SCIENTIST evaluates USER REQUIREMENTS hardly	BR10:DATA SCIENTIST EXTRACTS DATA 1 BR11: DATA SCIENTIST EXTRACTS DATA 2	- TE8: Status of Project set to In Progress - TE3: Role of the User was set to Data Scientist - TE10: Quality of Data set to High - RE5: Summary Extracted
P8: Detemines Model	G8 : Obtaining the type of model.	1 hour / 2 times a month	This process takes place in the data scientist workspace. It is important to determine a model that best fits the behavior of the data.	C5 : DATA SCIENTIST does not have EXPERIENCE	BR7:DATA SCIENTIST DETERMINES THE MODEL	- TE3: Role of the User was set to Data Scientist - TE2: Validity of summary was set to True
P9: Builds Application	G2 : Accomplishing application has solution	6 hours / 2 times a month	This process takes place in the data scientist workspace.The application is necessary to be able to work with the model and the data, using a programming and development tool to work with them.	C4 : APPLICATION does not have VERSION CONTROL SYSTEM	BR5:DATA SCIENTIST BUILDS APPLICATION	RE6: Application Built
P10: Updates Model	- G2 : Accomplishing application has solution - G3 : Enhancing the performance of the solution	2 hours / 8 times a month	This process takes place in the data scientist workspace. Sometimes the model needs refinement if the desired performance is not obtained at first, so it is updated.	C4 : APPLICATION does not have VERSION CONTROL SYSTEM	BR6: DATA SCIENTIST UPDATES THE MODEL	- TE8: Performance of Solution is less than Solution Validation of project - RE7: Model Updated
P11: Releases Result	G1 : Achieving the result	4 hours / 2 times a month	This process takes place in the data scientist workspace. It is important to be able to show the conclusions of what was obtained in the data processing, therefore the result must be concise and with the key points that were found to show in a clear and simple way to the stakeholders.		BR13:DATA SICIENTIST RELASES RESULT	- TE3: Role of the User was set to Data Scientist - TE9: Performance of Solution is greater than or equal to Solution Validation of project - RE8: Result Released
P12: Evaluates Result	- G4 : Conserving the end date of the project - G5 : Controling the status of the project	2 hours / 6 times a month	This process takes place in the data scientist workspace. Continuous evaluation of results is important as stakeholders give feedback that should be evaluated on results		BR14: DATA SCIENTIST EVALUATES RESULT	- TE3: Role of the User was set to Data Scientist - TE10: Feedback Appears - RE9: Result Evaluated

DATA DICTIONARY

BACK

Name	Alias	Type	Process involved	Features
A0: Administrator		Agent	P1: Creates User, P2: Deletes User, P3: Edits User	name, e-mail, password, role, identification
A1: Data Scientist		Agent and I/O storage	P1: Creates User, P2: Deletes User, P3: Edits User, P4: Evaluates user requirements, P6: Cleans Data, P7: Extracts Summary, P8: Detemines Model, P9: Builds Application, P10: Updates Model, P11: Releases Result, P12: Evaluates Result	name, e-mail, password, role, identification, job title, experience, style, background
A2: Stakeholder		External agent and I/O storage	P1: Creates User, P2: Deletes User, P3: Edits User, P5: Provides Data	name, e-mail, password, role, identification
A3: User		Agent and I/O storage	P1: Creates User, P2: Deletes User, P3: Edits User	name, e-mail, password, role, identification
A4: Employee		Agent and I/O storage	P1: Creates User, P2: Deletes User, P3: Edits User	name, e-mail, password, role, identification, job title, experience
S5: Data		I/O Storage	P5: Provides Data, P6: Cleans Data,	name, version, file, type, classification, creation date, update date, description, size, format, quality
S6: Summary		I/O Storage	P7: Extracts Summary	validity, creation date, description, file
S7: Application		I/O Storage	P9: Builds Application, P10: Updates Model	version, creation date, tool, update date, version control system
S8: Solution		I/O Storage	P9: Builds Application, P10: Updates Model	update date, file, description, version, creation date, performance
S9: Model		I/O Storage	P8: Detemines Model, P10: Updates Model	type, name
S10: User requirement		I/O Storage	P4: Evaluates user requirements	code, user story, status, description
S11: Project		I/O Storage		name, status, start date, end date, pre-processing tool, solution validation
S12: Result		I/O Storage	P11: Releases Result	update date, file, creation date, version, type
S13: Feedback		I/O Storage	P12: Evaluates Result	comment, date

BUSINESS RULES

BACK

Code	Name	Description	Formulae	Source	Related business rule
BR1	ADMINSTRATOR MANAGE THE USER	User can manage other users only if his role is administrator.	USER.ROLE="ADMINISTRATOR"	STAKEHOLDER	BR16
BR2	STAKEHOLDER PROVIDES DATA 1	The stakeholder can provides the data if, the summary validation is false and the user role is stakeholder	(SUMMARY.VALIDITY="FALSE" & USER.ROLE="STAKEHOLDER")	STAKEHOLDER	BR16, BR18
BR3	STAKEHOLDER PROVIDES DATA 2	THE STAKEHOLDER CAN PROVIDES DATA IF THE STAKEHOLDER IS SHOWS UP AND THE USER ROLE IS STAKEHOLDER	(STAKEHOLDER SHOWS UP & USER.ROLE="STAKEHOLDER")	STAKEHOLDER	BR16
BR4	DATA SCIENTISTS PROCESS DATA	data scientist can processes the data if the user's role is data scientist	USER.ROLE="DATA SCIENTIST"	STAKEHOLDER	BR16
BR5	DATA SCIENTIST BUILDS APPLICATION	Data scientist can builds the application only if data scientist determines the model		STAKEHOLDER	BR7
BR6	DATA SCIENTIST UPDATES THE MODEL	Data scientist can updates the application only if data scientist determines the model and the performance solution less than the project soluticon validation	DATA SCIENTIST DETERMINES THE MODEL & SOLUTION. PERFORMANCE < PROJECT. SOLUTION_VALIDATION	STAKEHOLDER	BR16, BR7
BR7	DATA SCIENTIST DETERMINES THE MODEL	The data scientist can determines the model only if summary validation is true	SUMMARY.VALIDITY="TRUE"	STAKEHOLDER	BR18
BR8	DATA SCIENTIST PRE-PROCESS DATA	the data scientist can pre-processes the data if the user's role is data scientist and the project's status is in progress	USER.ROLE="DATA SCIENTIST" & PROJECT.STATUS="IN PROGRESS"	STAKEHOLDER	BR16, BR17
BR9	DATA SCIENTIST CLEANS THE DATA	The data scientist can cleans the data if the stakeholder provides the data and the data quality is low.	STAKEHOLDER PROVIDES DATA & DATA.QUAILITY="LOW"	STAKEHOLDER	BR19, BR2, BR3
BR10	DATA SCIENTIST EXTRACTS DATA 1	The data scientist can extracts the data only if the data scientist cleaned the data		STAKEHOLDER	BR9
BR11	DATA SCIENTIST EXTRACTS DATA 2	The data scientist can extracts the data if the data quality is high and the stakeholder provides the data.	STAKEHOLDER PROVIDES DATA & DATA.QUALITY="HIGH"	STAKEHOLDER	BR19, BR2, BR3
BR12	DATA SCIENTIST POST-PROCESS DATA	Data scientist can post-process data only if the user role is data scientist	USER.ROLE="DATA SCIENTIST"	STAKEHOLDER	BR16
BR13	DATA SICIENTIST RELASES RESULT	The data scientist can releases the results only if the performance of the solution is greater than or equal to the solution validation of the project.	SOLUTION.PERFORMANCE >= PROJECT.SOLUTION VALIDATION	STAKEHOLDER	
BR14	DATA SCIENTIST EVALUATES RESULT	The data scientist can evaluates the results only if the feedback appears.		STAKEHOLDER	
BR15	DATA SCIENTIST EVALUATES USER REQUIEREMENTS	The data scientist can evaluates the requirements only if the user requirements arises		STAKEHOLDER	
BR16	USER ROLE	the user role can only be ADMINISTRATOR, DATA SCIENTIST STAKEHOLDER		STAKEHOLDER	
BR17	PROJECT STATUS	the project status can only be "finish" or "in progress"		STAKEHOLDER	
BR18	SUMMARY VALIDITY	the validation of the summary can only be "TRUE" or "FALSE".		STAKEHOLDER	
BR19	DATA QUALITY	data quality can only be "LOW" or "HIGH".		STAKEHOLDER	

GOAL DIAGRAM

BACK

BACK

PERCENTAGE ASSIGMENT TO GOALS

Father	KAOS element	Level	%	Achievement verb	Verb type	Verb weight	Verb %	Element type	Element weight	Element %	Weighted %	Leaf %
ROOT	G1. Achieving the result	5	100,0	ACHIEVE	ACHIEVEMENT	1	100,0	GOAL	2	100,0	100,0	0,0
			100,0			**1**	**100,0**		**2**	**100,0**	**100,0**	
G1	G2. Accomplishing application has solution	4	16,67	ACCOMPLISH	ACHIEVEMENT	1	9,1	GOAL	2	16,7	14,1	0,0
G1	G3. Enhancing the performance of the solution	4	16,67	ENHANCE	IMPROVEMENT	2	18,2	GOAL	2	16,7	17,2	0,0
G1	G4. Conserving the end date of the project	4	16,67	CONSERVE	MAINTENANCE	2	18,2	GOAL	2	16,7	17,2	0,0
G1	G5. Controling the status of the project	4	16,67	CONTROL	MAINTENANCE	2	18,2	GOAL	2	16,7	17,2	0,0
G1	G6. Fostering data has summary	4	16,67	FOSTER	IMPROVEMENT	2	18,2	GOAL	2	16,7	17,2	0,0
G1	G7. Maintaining the users	4	16,67	MAINTAIN	MAINTENANCE	2	18,2	GOAL	2	16,7	17,2	0,0
			100,0			**11**	**100,0**		**12**	**100,0**	**100,0**	
G2, G3	R1. Keeping the model be updated	3	22,7	KEEP	MAINTENANCE	2	22,7	REQUIREMENT	1	19,9	21,8	0,0
			22,7			**2**	**22,7**		**1**	**19,9**	**21,8**	
G3	G8. Obtaining the type of the model	3	8,6	OBTAIN	MAINTENANCE	2	8,6	GOAL	2	11,4	9,5	0,0
			8,6			**2**	**8,6**		**2**	**11,4**	**9,5**	
G4, G5	G9. Fostering the feedback	3	34,2	FOSTER	IMPROVEMENT	2	34,2	GOAL	2	34,2	34,2	0,0
			34,2			**2**	**34,2**		**2**	**34,2**	**34,2**	
G6	G10. Increasing the quality of data	3	17,1	INCREASE	IMPROVEMENT	2	17,1	GOAL	2	17,1	17,1	0,0
		3	**17,1**			**2**	**17,1**		**2**	**17,1**	**17,1**	
G7	R2. Fostering the users be managed	3	17,1	FOSTER	IMPROVEMENT	2	17,1	REQUIREMENT	1	17,1	17,1	17,1
			17,1			**2**	**17,1**		**1**	**17,1**	**17,1**	
G8, R1	R3. Making the data be processed	2	26,0	MAKE	ACHIEVEMENT	1	24,9	REQUIREMENT	1	26,0	25,6	25,6
			26,0			**1**	**24,9**		**1**	**26,0**	**25,6**	
G8	R4. Improving the user requirements be evaluated	2	4,3	IMPROVE	IMPROVEMENT	2	6,4	REQUIREMENT	1	4,3	5,0	5,0
			4,3			**2**	**6,4**		**1**	**4,3**	**5,0**	
G9	R5. Making the data be post-processed	2	34,2	MAKE	ACHIEVEMENT	1	34,2	REQUIREMENT	1	34,2	34,2	34,2
			34,2			**1**	**34,2**		**1**	**34,2**	**34,2**	
G10	R6. Making the data be pre-processed	2	8,6	MAKE	ACHIEVEMENT	1	5,7	REQUIREMENT	1	5,7	6,7	0,0
G10	G11. Ensuring project has data	2	8,6	ENSURE	MAINTENANCE	2	11,4	GOAL	2	11,4	10,5	0,0
			17,2			**3**	**17,1**		**3**	**17,1**	**17,1**	
G11, R6	R7. Improving the data be provided	1	17,2	IMPROVE	IMPROVEMENT	2	17,2	REQUIREMENT	2	17,2	17,2	17,2
		1	**17,2**			**2**	**17,2**		**2**	**17,2**	**17,2**	**99,1**

PROBLEMS PRE-CONCEPTUAL SCHEMA

CAUSE-AND-EFFECT DIAGRAM

BACK

PERCENTAGE ASSIGMENT TO PROBLEMS

BACK

	C1	C3	C4	C5
P1				
P2				
P3				
P4	G8			G8
P5		G11		
P6		G10		
P7	G10, G6			
P8				G8
P9			G2	
P10			G2,G3	
P11				
P12				

	C1	C3	C4	C5
P1				
P2				
P3				
P4	9,6			9,6
P5		10,5		
P6		17,2		
P7	34,4			
P8				9,6
P9			14,1	
P10			31,3	
P11				
P12				
Total	44	27,7	45,4	19,2
	136,3			
	32,3%	20,3%	33,3%	14,1%

	FORMULAE	VALUE	PERCENTAGE
SP2	C4+C5	47,4%	
SP1	C2+C1	52,6%	
		100,0%	
C1	32,3%	32,3%	61,4%
C2	C3	20,3%	38,6%
C3	20,3%	20,3%	100,0%
C4	33,3%	33,3%	70,3%
C5	14,1%	14,1%	29,7%

BACK

METHOD ASSESMENT TEMPLATE

Team	Team #2 - Data Scientist		Date	27-4-2022
UNC-METHOD		Suggestions for improvement		
Phase	Practice	Consistency	Completeness	Correction
Software Context	Discourse-based opportunity modeling		Elicitation cards should be color-coded to better differentiate between object, actor and function cards.	
Problem Analysis	Template-based elicitation of requirements		The process diagram explanatory table should have an extra column for observations.	
Software Context	Discourse-based opportunity modeling		There should be a guide or advice on how to formulate the questions to the stakeholders, so that the best and maximum amount of information can be obtained.	
Problem Analysis	Visual modeling of requirements		There should be information on the syntax of the event interaction graph, as well as some examples to be consistent with the process diagram.	
Problem Analysis	Template-based elicitation of requirements		There should be examples of how to obtain the percentages of goals and problems, explaining step by step how to obtain them, since this process can be confusing and difficult to understand.	
Software Context - Problem Analysis	Visual modeling of requirements			For ease and speed of reading, references in the preconceptual schema should have different notation for dynamic relationship implications, achievement implications, and normal triads.
Problem Analysis	Visual modeling of requirements			In the process diagram there should be a way to better identify the actors, either by means of a color or a more characteristic symbol.
Problem Analysis	Visual modeling of requirements		There should be a better indication of what the process flow looks like.	
Problem Analysis	Visual modeling of requirements	In order to obtain the causes of the cause-effect diagram, from the problems pre-conceptual schema, there should be a way to hierarchize these causes from the same pre-conceptual.		
Problem Analysis	Template-based elicitation of requirements		Mathematical expressions should be allowed in the syntax.	

TEAM CHARTER

BACK

Team name	Team #2: Data Scientist	**Date**	24/04/2022
Team leader	Diego Valentín Osorio Marín	**Sponsor**	UNAL
Team purpose	As the purpose of our team is to do all the analysis work on all the responsibilities of a data scientist in a software development company, using the UNC-METHOD.		
Mission	Our mission is to simplify the work of data scientists within a company, through a software product that increases productivity and optimizes workflow, taking into account certain objectives.		
Objetives	- Identify and analyze data scientist problems and solutions within a company. - To come up with consistent models that correctly represent what our stakeholders express. - Make good use of time to generate good work products.		
Scope	Analysis and development of what a data scientist does within a company.		

Team members		
Name	**Roles**	**Responsibilities**
Diego Valentín Osorio Marín	Leader, Meeting Coordinator, Analyst, Moderator	- Elaborate pre-conceptual schema. - Elaborate kanban board - Elaborate alphas advance report - Make corrections corresponding to deliverable 1 - Elaborate goal diagram - Elaborate cause and effect diagram - Assess the team - Asing tasks - KPis elaboration - Use cases elaboration - Calculation elaboration
Jaime Andrés Monsalve Ballesteros	Documenter, Programmer, Tester	- Elaborate document traceability table - Elaborate percentage assigment to goals and problems - Verificate consistency - Elaboration of Prototype
Santiago Castro Tabares	Analyst, Researcher, Programmer, Tester	- Check consistency - Elaborate pre-conceptual schema. - Elaboration of process diagram and explanatory table - Elaborate Event interaction graph - Elaboration of Prototype
Fredy Alberto Orozco Loaiza	Digital information manager, Analyst, Researcher	- Contact the stakeholder - Elaborate pre-conceptual schema. - Elaborate of Elicitation cards - Elaborate of Business rules - Elaborate the Domain model - Elaborate Data Dictionary - Elaboration of Prototype

NEW ORGANIZATIONAL CHART

BACK

Goals:

Ensuring project has data
Increasing the quality of data
Fostering the feedback
Obtaining the type of the model
Accomplishing application has solution
Enhancing the performance of the solution
Conserving the end date of the project
Controlling the status of the project
Fostering data has summary
Maintaining the users
Achieving the result

Problem Area:
Chief information officer (CIO), Business Analyst, User Experience Designer, Data Scientist, Database administrator, Cloud architect and Administrator

Responsibilities:

Manages users
Pre-process data
Process data
Post-process data

USER STORY AGREEMENT

BACK

Project Name	DATA SCIENTIST				
Date	30/05/2022	Prepared by	Team #2	Authorized by	Carlos Mario Zapata Jaramillo

User Story Description			Acceptance Criteria		
As a...	I want...	So that...	Given...	When...	Then...
Administrator	To Create Users	We can maintain the users	The arising of a user	I click on the CREATES hyperlink	The software system displays the interface for creating users
Administrator	To Edit Users	We can maintain the users	The creation of a user	I click on the EDITS hyperlink	The software system displays the interface for editing users
Administrator	To Delete Users	We can maintain the users	The creation of a user	I click on the DELETES hyperlink	The software system displays the interface for deleting users
Stakeholder	To Provide Data	We can ensure project has data	The stakeholder shows up	I click on the PROVIDES hyperlink	The software system displays the interface for providing data
Data Scientist	To Clean Data	We can increase the quality of data	The data is provided, data quality is low and project is in progress	I click on the CLEANS hyperlink	The software system displays the interface for cleaning data
Data Scientist	To Extract a Summary	We can increase the quality of data and we can foster that data has summary	The data is provided, data quality is high and project is in progress	I click on the EXTRACTS hyperlink	The software system displays the interface for extracting summary
Data Scientist	To Determine a Model	We can obtain the type of model	The summary validity is true	I click on the DETERMINES hyperlink	The software system displays the interface for determining the model
Data Scientist	To Build an Application	We can accomplish that application has solution	The summary validity is true and the determination of a model	I click on the BUILDS hyperlink	The software system displays the interface for building the application
Data Scientist	To Update a Model	We can accomplish that application has solution and we can enhance the performance of the solution	The determination o a model and solution performance less than project solution validation	I click on the UPDATES hyperlink	The software system displays the interface for updating the model
Data Scientist	To Release a Result	We can achieve the result	The solution performance is better than project solution validation	I click on the RELEASES hyperlink	The software system displays the interface for releasing a result

NEW PROCESS DIAGRAM

BACK

BACK

NEW PROCESS DIAGRAM EXPLANATORY TABLE

Name	Goal	Duration/Frequency	How?/Where?	Problems	Business rules	Events	Use cases
P1: Creates User	G7 : Maintaining the users	5 minutes / 4 times a month	For each user, the personal information is registered. This process takes place were the software is developed.		BR1: ADMINSTRATOR MANAGE THE USER	- TE1: Role of the User was set to Administrator - TE2: User Arises	UC01: Creates User
P2: Deletes User	G7 : Maintaining the users	2 minutes / once a month	Users have sometimes the need to quit the system. In such a case, the user is deleted. This process takes place were the software is developed		BR1: ADMINSTRATOR MANAGE THE USER	RE1: User Deleted	UC02: Deletes User
P3: Edits User	G7 : Maintaining the users	4 minutes / 9 times a month	This process takes place were the software is developed whenever the user information needs some adjustment		BR1: ADMINSTRATOR MANAGE THE USER	RE2: User Edited	UC03: Edits User
P4: Evaluates user requirements	G8 : Obtaining the type of model.	24 hours / 2 times a month	When a project is developed, it comes with some user requirements that the data scientist must assess. This process takes place in the data scientist workspace	- C5 : DATA SCIENTIST does not have EXPERIENCE - C1 : DATA SCIENTIST evaluates USER REQUIREMENTS hardly	BR15:DATA SCIENTIST EVALUATES USER REQUIEREMENTS	- TE3: Role of the User was set to Data Scientist - TE4: User Requirement Arises - RE3: User Requirement Evaluated	
P5: Provides Data	G11: Ensuring project has data	10 minutes / 2 times a month	It is very important that the stakeholder provides the data with which the data scientist will work. This process takes place in the data scientist workspace	C3 : STAKEHOLDER provides DATA wrongly	BR2:STAKEHOLDER PROVIDES DATA 1, BR3: STAKEHOLDER PROVIDES DATA 2	- TE5: Role of the User was set to Stakeholder - TE6: Stakeholder shows up - TE5: Role of the User was set to Stakeholder - TE7: Validity of Summary set to False	UC04: Provides Data
P6: Cleans Data	G10: Increasing the quality of data	36 hours / 2 times a month	In many cases, the data provided are not of the best quality, so it is necessary to clean and depurate them. This process takes place in the data scientist workspace	C3 : STAKEHOLDER provides DATA wrongly	BR9:DATA SCIENTIST CLEANS THE DATA	- TE9: Quality of Data set to Low - TE8: Status of Project set to In Progress - TE3: Role of the User was set to Data Scientist - RE4: Data Cleaned	UC5: Cleans Data
P7: Extracts Summary	- G10: Increasing the quality of data - G6: Fostering data has summary	2 hours / 2 times a month	A summary of the data is necessary to see how the data behaves and to find relationships in it. This process takes place in the data scientist workspace	C1 : DATA SCIENTIST evaluates USER REQUIREMENTS hardly	BR10:DATA SCIENTIST EXTRACTS DATA 1 BR11: DATA SCIENTIST EXTRACTS DATA 2	- TE8: Status of Project set to In Progress - TE3: Role of the User was set to Data Scientist - TE10: Quality of Data set to High - RE5: Summary Extracted	UC06: Extracts Summary
P8: Detemines Model	G8 : Obtaining the type of model.	1 hour / 2 times a month	This process takes place in the data scientist workspace. It is important to determine a model that best fits the behavior of the data.	C5 : DATA SCIENTIST does not have EXPERIENCE	BR7:DATA SCIENTIST DETERMINES THE MODEL	- TE3: Role of the User was set to Data Scientist - TE2: Validity of summary was set to True	UC07: Detemines Model
P9: Builds Application	G2 : Accomplishing application has solution	6 hours / 2 times a month	This process takes place in the data scientist workspace.The application is necessary to be able to work with the model and the data, using a programming and development tool to work with them.	C4 : APPLICATION does not have VERSION CONTROL SYSTEM	BR5:DATA SCIENTIST BUILDS APPLICATION	RE6: Application Built	UC08: Builds Application
P10: Updates Model	- G2 : Accomplishing application has solution - G3 : Enhancing the performance of the solution	2 hours / 8 times a month	This process takes place in the data scientist workspace. Sometimes the model needs refinement if the desired performance is not obtained at first, so it is updated.	C4 : APPLICATION does not have VERSION CONTROL SYSTEM	BR6: DATA SCIENTIST UPDATES THE MODEL	- TE8: Performance of Solution is less than Solution Validation of project - RE7: Model Updated	UC09: Updates Model
P11: Releases Result	G1 : Achieving the result	4 hours / 2 times a month	This process takes place in the data scientist workspace. It is important to be able to show the conclusions of what was obtained in the data processing, therefore the result must be concise and with the key points that were found to show in a clear and simple way to the stakeholders.		BR13:DATA SICIENTIST RELASES RESULT	- TE3: Role of the User was set to Data Scientist - TE9: Performance of Solution is greater than or equal to Solution Validation of project - RE8: Result Released	UC10: Releases Result
P12: Evaluates Result	- G4 : Conserving the end date of the project - G5 : Controling the status of the project	2 hours / 6 times a month	This process takes place in the data scientist workspace. Continuous evaluation of results is important as stakeholders give feedback that should be evaluated on results		BR14: DATA SCIENTIST EVALUATES RESULT	- TE3: Role of the User was set to Data Scientist - TE10: Feedback Appears - RE9: Result Evaluated	

NEW DATA DICTIONARY

BACK

Name	Alias	Type	Process involved	Features
A0: Administrator		Agent	P1: Creates User, P2: Deletes User, P3: Edits User	name, e-mail, password, role, identification
A1: Data Scientist		Agent and I/O storage	P1: Creates User, P2: Deletes User, P3: Edits User, P4: Evaluates user requirements, P6: Cleans Data, P7: Extracts Summary, P8: Detemines Model, P9: Builds Application, P10: Updates Model, P11: Releases Result, P12: Evaluates Result	name, e-mail, password, role, identification, job title, experience, style, background
A2: Stakeholder		External agent and I/O storage	P1: Creates User, P2: Deletes User, P3: Edits User, P5: Provides Data	name, e-mail, password, role, identification
A3: User		Agent and I/O storage	P1: Creates User, P2: Deletes User, P3: Edits User	name, e-mail, password, role, identification
A4: Employee		Agent and I/O storage	P1: Creates User, P2: Deletes User, P3: Edits User	name, e-mail, password, role, identification, job title, experience
S5: Data		I/O Storage	P5: Provides Data, P6: Cleans Data,	name, version, file, type, classification, creation date, update date, description, size, format, quality
S6: Summary		I/O Storage	P7: Extracts Summary	validity, creation date, description, file
S7: Application		I/O Storage	P9: Builds Application, P10: Updates Model	version, creation date, tool, update date, version control system
S8: Solution		I/O Storage	P9: Builds Application, P10: Updates Model	update date, file, description, version, creation date, performance
S9: Model		I/O Storage	P8: Detemines Model, P10: Updates Model	type, name
S10: User requirement		I/O Storage	P4: Evaluates user requirements	code, user story, status, description
S11: Project		I/O Storage		name, status, start date, end date, pre-processing tool, solution validation
S12: Result		I/O Storage	P11: Releases Result	update date, file, creation date, version, type
S13: Feedback		I/O Storage	P12: Evaluates Result	comment, date

USE CASES

BACK

USE CASES EXPLANATORY TABLES

BACK

Use Case	*UC01 Creates User*		
Version	*1.0*	**Date**	26/05/2022
Author	*Diego Valentín Osorio Marín*		
Source	Stakeholders		
Purpose	*Registering the basic information of the users in the database*		
Goals	*G7 : Maintaining the users*		
Summary	*The system provides the interface to enter data for each user—e.g., user name, identification, e-mail and password. You can select the permits for assigning to the user.*		
Actors	*A0: Administrator*		
Precondition	*The arising of a user*		
Interaction Sequence	**Administrator**	**System**	
1	*Clicks on the hyperlink "CREATES"*	*Displays the interface "CREATE USER"*	
2	*He/She enters the user name, identification, e-mail, password and selects role, and clicks on "Create" button.*	*Saves the new user and Displays the index interface*	
Alternative Sequences	**Administrator**	**System**	
1-2	*He/she clicks on the "Cancel" button.*	*Returns to index interface*	
1-2	*He/she clicks on the "Data Scientist" title.*	*Returns to index interface*	
Duration	*Optimum:3 minutes, Average: 4 minutes, Maximum:5 minutes*		
Frequency	*4 times a month*		
Type	***Primary***		
Postconditions	*The user has been created*		
Chart			

Interfaces

Data Scientist

Data Scientist

USER

Identification	Name	Password	Email	Role
1007290916	Valentin Osorio	**********	dosoriom@unal.edu.co	ADMINISTRATOR
1008745824	Santiago Castro	**********	sacastrot@unal.edu.co	ADMINISTRATOR
1008634586	Fredy Orozco	**********	forozcol@unal.edu.co	DATA SCIENTIST
1007899123	Andres Monsalve	**********	jmonsalveb@unal.edu.co	DATA SCIENTIST
70943671	Tony Stark	**********	tstark@unal.edu.co	STAKEHOLDER

Use Case	*UC02 Deletes User*		
Version	*1.0*	**Date**	26/05/2022
Author	*Diego Valentín Osorio Marín*		
Source	Stakeholders		
Purpose	*Removing the information of obsolete users.*		
Goals	*G7 : Maintaining the users*		
Summary	*The system provides the interface to select the user who is intended to delete.*		
Actors	*A0: Administrator*		
Precondition	*The user must be created*		
Interaction Sequence	**Administrator**	**System**	
1	*Clicks on the hyperlink "DELETES"*	*Displays the interface "MANAGE USER"*	
2	*He/She clicks on the user which is wanted to delete, then clicks on the "Delete" button*	*Deletes the user and returns to the index interface*	
Alternative Sequence	**Administrator**	**System**	
1	*Clicks on the hyperlink "EDITS"*	*Displays the interface "MANAGE USER"*	
2	*He/she clicks on the "Data Scientist" title.*	*Returns to index interface*	
Duration	*Optimum:30 seconds, Average: 1 minute, Maximum:2 minutes*		
Frequency	*Once a month*		
Type	***Primary***		
Postconditions	*The user has been deleted*		
Chart			
Interfaces			

Use Case	*UC03 Edits User*		
Version	*1.0*	**Date**	26/05/2022
Author	*Diego Valentín Osorio Marín*		
Source	Stakeholders		
Purpose	*Allowing changes in the registered users*		
Goals	*G7 : Maintaining the users*		
Summary	*The system provides the interface to select the user who is intended to delete.*		
Actors	*A0: Administrator*		
Precondition	*The user must be created*		
Interaction Sequence	**Administrator**	**System**	
1	*Clicks on the hyperlink "EDITS"*	*Displays the interface "MANAGE USER"*	
2	*He/She clicks on the user which is wanted to edit, then clicks the "Edit" button.*	*Displays the interface "EDIT USER"*	
3	*He/She edits the user name, identification, e-mail, password and selects role, and clicks on "Edit" button.*	*Saves the edited information of the user and Displays the index interface*	
Alternative Sequence	**Administrator**	**System**	
1	*Clicks on the hyperlink "DELETES"*	*Displays the interface "MANAGE USER"*	
1-2	*He/she clicks on the "Data Scientist" title.*	*Returns to index interface*	
1-3	*He/she clicks on the "Cancel" button.*	*Returns to index interface*	
Duration	*Optimum:2 minutes, Average: 4 minutes, Maximum:4 minutes*		
Frequency	*9 times a month*		
Type	***Primary***		
Postconditions	*The user has been edited*		

Chart

Interfaces

Data Scientist

Data Scientist

Use Case	*UC04 Provides Data*		
Version	*1.0*	**Date**	27/05/2022
Author	*Diego Valentín Osorio Marín, Santiago Castro Tabares*		
Source	Stakeholders		
Purpose	*Allowing the stakeholders to provide data*		
Goals	*G11 : Esuring project has data* *R7: Improving the data be provided* *This use case is intended to deal with the following problems:C3 : STAKEHOLDER provides DATA wrongly*		
Summary	*The system provides the interface to fill all fields required to provide data*		
Actors	*A2: Stakeholder*		
Precondition	*The validity of the summary must be false or the stakeholder must be shows up*		
Interaction Sequence	**Stakeholder**	**System**	
1	*Clicks on the hyperlink "PROVIDES"*	*Displays the interface "PROVIDE DATA"*	
2	*He/She enters de data information like name, file and others.* *He/She click on the button "PROVIDE"*	*Saves the data information of the user and Displays the index interface*	
Alternative Sequence	**Stakeholder**	**System**	
2	*He/she clicks on the "Data Scientist" title.*	*Returns to index interface*	
1-2	*He/she clicks on the "Cancel" button.*	*Returns to index interface*	
Duration	*Optimum:5 minutes, Average: 8 minutes, Maximum:10 minutes*		
Frequency	*2 times a month*		
Type	***Primary***		
Postconditions	*The data has been provided*		
Chart			
Interfaces			

Data Scientist

Data Scientist

Data Instances

Name	Version	File	Type	Classification	Creation Date	Update Date	Description	Size	Format	Quality
Users data	1.0	user_data.jpg	Unstructured Data	Deterministic	13/04/2021	01/05/2022	This file contains the information about users of Netflix, with diferent atributtes	1.5 GB	Images	Low
Iris Data	1.0	iris_data.csv	Structured Data	Deterministic	13/04/2021	01/05/2022	This file contains information about iris flowers an its characteristics	30 MB	Attributes	Low
Movies Data	1.0	movies.csv	Structured Data	Probabilistic	13/04/2021	26/05/2022	This file contains information about movies an its characteristics	30 MB	Database	High

Use Case	*UC05 Cleans Data*		
Version	*1.0*	**Date**	27/05/2022
Author	*Diego Valentín Osorio Marín, Santiago Castro Tabares*		
Source	Stakeholders		
Purpose	*Allow the data scientist to improve the quality of the data*		
Goals	*G10: Increasing the quality of data* *R6: Making the data be pre-processed* *This use case is intended to deal with the following problems: C3: STAKEHOLDER provides DATA wrongly*		
Summary	*The system provides the interface to fill all fields required to provide a clean version data*		
Actors	*A1: Data Scientist*		
Precondition	*The project status should be in progress and the quality of the data should be high and the stakeholder should have provided the data.*		
Interaction Sequence	**Data Scientist**	**System**	
1	*Clicks on the hyperlink "CLEANS"*	*Displays the interface "DATA TO CLEAN"*	
2	*He/She selects the data instance to be cleaned* *He/She click on the button "CLEANS"*	*Displays the interface "PROVIDE DATA"*	
3	*He/She enters de data information like name, file and others.* *He/She click on the button "PROVIDE"*	*Saves the data information of the user and Displays the index interface*	
Alternative Sequence	**Data Scientist**	**System**	
1-2	*He/she clicks on the "Data Scientist" title.*	*Returns to index interface*	
1-3	*He/she clicks on the "Data Scientist" title.*	*Returns to index interface*	
1-3	*He/she clicks on the "Cancel" button.*	*Returns to index interface*	
Duration	*Optimum: 15 hours, Average: 25 hours, Maximum:36 hours*		
Frequency	*2 times a month*		
Type	***Primary***		
Postconditions	*The data has been cleaned*		
Chart			

Interfaces

Data Scientist

Data Scientist

Use Case	*UC06 Extracts Summary*		
Version	*1.0*	**Date**	27/05/2022
Author	*Diego Valentin Osorio Marín, Santiago Castro Tabares*		
Source	Stakeholders		
Purpose	*Allow the data scientist to load a summary of the clean data*		
Goals	*G10 : Increasing the quality of data* *G6: Fostering data has summary* *R6: Making the data be pre-processed* *This use case is intended to deal with the following problems: C1: DATA SCIENTIST evaluates USER REQUIREMENTS hardly*		
Summary	*The system provides the interfaces to associate summaries to the data*		
Actors	*A1: Data Scientist*		
Precondition	*Project status must be in progress and data quality must be high or project status must be in progress and the data scientist cleaned up the data*		
Interaction Sequence	**Data Scientist**	**System**	
1	*Clicks on the hyperlink "EXTRACTS"*	*Displays the interface "DATA TO EXTRACT"*	
2	*He/She selects the data instance to which the summary is to be associated* *He/She click on the button "NEXT"*	*Displays the interface "EXTRACT SUMMARY"*	
3	*He/She enters de data information like file, description and if it is validate or not* *He/She click on the button "ACCEPT"*	*Saves the summary information of the summary and Displays the index interface*	
Alternative Sequence	**Data Scientist**	**System**	
2	*He/she clicks on the "Data Scientist" title.*	*Returns to index interface*	
1-3	*He/she clicks on the "Data Scientist" title.*	*Returns to index interface*	
1-3	*He/she clicks on the "Cancel" button.*	*Returns to index interface*	
Duration	*Optimum:50 minutes, Average: 1 hours, Maximum: 2 hours*		
Frequency	*2 times a month*		
Type	***Primary***		
Postconditions	*The summary has been extracted*		

Chart

Interfaces

Data Scientist

Data Scientist

Data Science

Use Case	*UC07 Determines Model*		
Version	*1.0*	**Date**	27/05/2022
Author	*Diego Valentín Osorio Marín, Santiago Castro Tabares*		
Source	Stakeholders		
Purpose	*Allow the data scientist to fill in the fields for the model that he determined*		
Goals	*G8: Obtaining the type of model.* *R7: Making the data be processed* *This use case is intended to deal with the following problems: C5: DATA SCIENTIST does not have EXPERIENCE*		
Summary	*The system provides the interface to fill all fields required to determines a model*		
Actors	*A1: Data Scientist*		
Precondition	*The summary must be valid*		
Interaction Sequence	**Data Scientist**	**System**	
1	*Clicks on the hyperlink "DETERMINES"*	*Displays the interface "DETERMINE MODEL"*	
2	*He/She enters de data information like name and type.* *He/She click on the button "ACCEPT"*	*Saves the model information and Displays the index interface*	
Alternative Sequence	**Data Scientist**	**System**	
2	*He/she clicks on the "Data Scientist" title.*	*Returns to index interface*	
1-2	*He/she clicks on the "Cancel" button.*	*Returns to index interface*	
Duration	*Optimum:30 minutes, Average: 45 minutes, Maximum:1 hour*		
Frequency	*2 times a month*		
Type	***Primary***		
Postconditions	*The model has been provided*		
Chart			
Interfaces			

Data Scientist

Data Scientist

Use Case	*UC08 Builds Application*		
Version	*1.0*	**Date**	28/05/2022
Author	*Diego Valentín Osorio Marín, Santiago Castro Tabares*		
Source	Stakeholders		
Purpose	*Allowing the data scientist to accomplish the solution of the model by creating an application.*		
Goals	*G2 : Accomplishing application has solution, R3: Making the data be processed* *This use case is intended to deal with the following problems: C4 : APPLICATION does not have VERSION CONTROL SYSTEM*		
Summary	*The system provides the interface to fill all fields required to build application*		
Actors	*A1: Data Scientist*		
Precondition	*The determination of a model*		
Interaction Sequence	**Data Scientist**	**System**	
1	*Clicks on the hyperlink "BUILDS"*	*Displays the interface "SELECT DATA"*	
2	*He/She selects the data.* *He/She click on the button "next"*	*Displays the interface "SELECT MODEL"*	
3	*He/She selects the model.* *He/She click on the button "next"*	*Displays the interface "CREATE APPLICATION"*	
4	*He/She enters de application information like tool and version control system.* *He/She clicks on the button "Accept"*	*Saves the application information and return to index interface.*	
Alternative Sequence	**Data Scientist**	**System**	
2	*He/she clicks on the "Data Scientist" title.*	*Returns to index interface*	
3	*He/she clicks on the "Data Scientist" title.*	*Returns to index interface*	
4	*He/she clicks on the "Data Scientist" title.*	*Returns to index interface*	
4	*He/she clicks on the "Cancel" button.*	*Returns to index interface*	
Duration	*Optimum:1 hour, Average: 3 hours, Maximum:6 hours*		
Frequency	*2 times a month*		
Type	***Primary***		
Postconditions	*The application has been built*		
Chart			

Interfaces	

Data Scientist

Data Scientist

Data Scientist

Data Scientist

Version	Creation Date	Tool	Version Control System	Update Date	Data Name	Model Name
1.0	04/09/2021	Python	GIT	04/07/2021	Users data	Differential equations model
1.0	12/11/2021	R	DVC	04/07/2021	Iris data	Iris class model
1.0	06/12/2021	R	CODECOMMIT	04/07/2021	Movies data	Fraud detection model

Use Case	*UC09 Updates Model*		
Version	*1.0*	**Date**	27/05/2022
Author	*Diego Valentín Osorio Marín, Santiago Castro Tabares*		
Source	Stakeholders		
Purpose	*Allowing the data scientist to update the model and the creation of a new solution for it.*		
Goals	*G2 : Accomplishing application has solution,G3 : Enhancing the performance of the solution, R1: Keeping the model be updated, R3: Making the data be processed* *This use case is intended to deal with the following problems: C4 : APPLICATION does not have VERSION CONTROL SYSTEM*		
Summary	*The system provides the interfaces to fill all fields required to update model*		
Actors	*A1: Data Scientist*		
Precondition	*The performance of the solution must be less than the solution validation of the project and the determination of a model.*		
Interaction Sequence	**Data Scientist**	**System**	
1	*Clicks on the hyperlink "UPDATES"*	*Displays the interface "SELECT MODEL"*	
2	*He/She selects the model to edit.* *He/She click on the button "next"*	*Displays the interface "SELECT APPLICATION"*	
3	*He/She selects the application to edit.* *He/She click on the button "next"*	*Displays the interface "CREATE SOLUTION"*	
4	*He/She enters de solution information like description and file.* *He/She clicks on the button "Provide"*	*Saves the solution information and returns to the index interface.*	
Alternative Sequence	**Data Scientist**	**System**	
2	*He/she clicks on the "Data Scientist" title.*	*Returns to index interface*	
3	*He/she clicks on the "Data Scientist" title.*	*Returns to index interface*	
4	*He/she clicks on the "Data Scientist" title.*	*Returns to index interface*	
4	*He/she clicks on the "Cancel" button.*	*Returns to index interface*	
Duration	*Optimum:10 minutes, Average: 1 hour, Maximum:2 hours*		
Frequency	*8 times a month*		
Type	***Primary***		
Postconditions	*The model has been updated*		
Chart			

Interfaces

Data Scientist

Data Scientist

Data Scientist

Data Science

Use Case	*UC10 Releases Result*		
Version	*1.0*	**Date**	27/05/2022
Author	*Diego Valentín Osorio Marín, Santiago Castro Tabares*		
Source	Stakeholders		
Purpose	*Allowing the data scientist to achieve the result and publishing it.*		
Goals	*G1 : Achieving the result, R5: Making the data be post-processed*		
Summary	*The system provides the interface to fill all fields required to release result*		
Actors	*A1: Data Scientist*		
Precondition	*The performance of the solution must be better or equal than the solution validation of the project*		
Interaction Sequence	**Data Scientist**	**System**	
1	*Clicks on the hyperlink "RELEASES"*	*Displays the interface "RELEASE RESULT"*	
2	*He/She enters de result information like type and file.* *He/She click on the button "Accept"*	*Saves the result information and returns to the index interface*	
Alternative Sequence	**Data Scientist**	**System**	
2	*He/she clicks on the "Data Scientist" title.*	*Returns to index interface*	
1-2	*He/she clicks on the "Cancel" button.*	*Returns to index interface*	
Duration	*Optimum:10 minutes, Average: 2 hours, Maximum:4 hours*		
Frequency	*2 times a month*		
Type	***Primary***		
Postconditions	*The resulthas been released*		
Chart			
Interfaces			

Data Scientist

Data Scientist

Creation Date	File	Version	Type	Update Date
19-01-2022	dashboard.js	1.0	dashboard	19-02-2022
12-01-2022	solution_car_moviility	3.5	Python Project	01-02-2022
19-03-2022	mother_summary.pdf	1.0	dashboard	20-03-2022

USER INTERFACE FLOW DIAGRAM

BACK

SOLUTION VALUE

BACK

Process	Goals/Requirements	Problems	Use Cases
P1: Creates User	G7, R2		UC01: Creates User
P2: Edits User	G7, R2		UC02: Edits User
P3: Deletes User	G7, R2		UC03: Deletes User
P5: Provides Data	G11, R6, R7	C3	UC05: UCrovides Data
P6:Cleans Data	G10, R6	C3	UC06: Cleans Data
P7: Extracs Summary	G6, G10, R6	C1	UC07: Extracs Summary
P8: Determines Model	G8, R3	C5	UC08: Determines Model
P9: Builds Application	G2, R3	C4	UC09: Builds AUCUClication
P10: Updates Model	G2, G3, R3, R1	C4	UC10: Updates Model
P11: Releases Result	G1, R5		UC11: Releases Result

Use Case	Cause	Pi,j	Qi,j	Ci	%
UC07	C1	61,4	52,6	78,2	25,2
UC05, UC06	C3	38,6	52,6	100,0	20,3
UC09, UC10	C4	70,3	47,4	100,0	33,3
UC08	C5	29,7	47,4	50,0	7,0
				TOTAL COVERAGE	85,9

NEW CAUSE-AND-EFFECT DIAGRAM

BACK

SOLUTION EFFORT

BACK

Analysis of the actors belonging to the case study

	Actor Summary	Multiplier	Number of Actors	Description
1	**Simple**	1	**0**	Simple actors are other systems that communicate with your communicate with your software through a predefined API. predefined API. An API could be exposed through a dll, or as a REST through a dll, or as a REST, SOAP or any web service API or any web service API or remote procedure call (RPC). remote procedure call (RPC). The key element is that you are exposing the interaction with your software through a specific, well-defined defined mechanism.
2	**Average**	2	**1**	The average actors can be human beings interacting in a well-defined protocol, or they could be systems that interact systems interacting through a more complex or flexible a more complex or flexible API.
3	**Complex**	3	**2**	The original definition of complex actors specific that users interacting with the software through a graphical through a graphical user interface are complex actors. graphical user interface are complex actors. While that is true, the same true, the same classification should apply to users interacting with the users who interact with the system in unpredictable ways. unpredictable ways. An AJAX interface that exposes more of the underlying application (and data stores) that would be data stores) than would be available through a rigid protocol could introduce through a rigid protocol could introduce similar complexity. similar complexity.
	Calculated AW		**8**	
	Individual Actors	**Multiplier**	**Actor Name**	
1	Average	2	Administrator	
2	Complex	3	Stakeholder	
3	Complex	3	Data Scientist	

Analysis of the use cases belonging to the case study

	Unadjusted Use Case Points	Multiplier	Number of Use Cases	Description
1	**Simple**	5	**8**	Simple Use Case - up to 3 transactions
2	**Average**	10	**2**	Average Use Case - 4 to 7 transactions
3	**Complex**	15	**0**	Complex Use Case - more than 7 transactions
	Calculated UUCP		**60**	
	Individual Use Cases	**Multiplier**	**Use Case Name**	
1	Simple	5	Creates User	
2	Simple	5	Edits User	
3	Simple	5	Deletes User	
4	Simple	5	Provides Data	
5	Simple	5	Cleans Data	
6	Simple	5	Extracs Summary	
7	Simple	5	Determines Model	
8	Average	10	Builds Application	
9	Average	10	Updates Model	
10	Simple	5	Releases Result	

Analysis of the environmental factor belonging to the case study

	Environmental Factor	Multiplier	Relative Magnitude (Enter 0-5)	Description
1	**Familiarity With The Project**	1,5	**4**	How much experience does your team have working in this domain? The domain of the project will be a reflection of what the software is intended to accomplish, not the implementation language. In other words, for an insurance compensation system written in java, you care about the team's experience in the insurance compensation space - not how much java they've written. Higher levels of experience get a higher number
2	**Application Experience**	0,5	**4**	How much experience does your team have with the application. This will only be relevant when making changes to an existing application. Higher numbers represent more experience. For a new application, everyone's experience will be 0.
3	**OO Programming Experience**	1	**5**	How much experience does your team have at OO? It can be easy to forget that many people have no object oriented programming experience if you are used to having it. A user-centric or use-case-driven project will have an inherently OO structure in the implementation. Higher numbers represent more OO experience
4	**Lead Analyst Capability**	0,5	**5**	How knowledgeable and capable is the person responsible for the requirements? Bad requirements are the number one killer of projects - the Standish Group reports that 40% to 60% of defects come from bad requirements. Higher numbers represent increased skill and knowledge.
5	**Motivation**	1	**5**	How motivated is your team? Higher numbers represent more motivation.
6	**Stable Requirements**	2	**4**	Changes in requirements can cause increases in work. The way to avoid this is by planning for change and instituting a timing system for managing those changes. Most people don't do this, and some rework will be unavoidable. Higher numbers represent more change (or a less effective system for managing change).
7	**Part Time Staff**	-1	**1**	Note, the multiplier for this number is negative. Higher numbers reflect team members that are part time, outside consultants, and developers who are splitting their time across projects. Context switching and other intangible factors make these team members less efficient.
8	**Difficult Programming Language**	-1	**3**	This multiplier is also negative. Harder languages represent higher numbers. We believe that difficulty is in the eye of the be-coder (groan). Java might be difficult for a fortran programmer. Think of it in terms of difficulty for your team, not abstract difficulty.
	Calculated EF		**0,67**	

Analysis of the technical factor belonging to the case study

	Technical Factor	Multiplier	Relative Magnitude (Enter 0-5)	Description
1	**Distributed System Required**	2	**1**	The architecture of the solution may be centralized or single-tenant , or it may be distributed (like an n-tier solution) or multi-tenant. Higher numbers represent a more complex architecture.
2	**Response Time Is Important**	1	**3**	The quickness of response for users is an important (and non-trivial) factor. For example, if the server load is expected to be very low, this may be a trivial factor. Higher numbers represent increasing importance of response time (a search engine would have a high number, a daily news aggregator would have a low number)
3	**End User Efficiency**	1	**4**	Is the application being developed to optimize on user efficiency, or just capability? Higher numbers represent projects that rely more heavily on the application to improve user efficiency.
4	**Complex Internal Processing Required**	1	**2**	Is there a lot of difficult algorithmic work to do and test? Complex algorithms (resource leveling, time domain systems analysis, OLAP cubes) have higher numbers. Simple database queries would have low numbers.
5	**Reusable Code Must Be A Focus**	1	**2**	Is heavy code reuse an objective or goal? Code reuse reduces the amount of effort required to deploy a project. It also reduces the amount of time required to debug a project. A shared library function can be re-used multiple times, and fixing the code in one place can resolve multiple bugs. The higher the level of re-use, the lower the number.
6	**Installation Ease**	0,5	**4**	Is ease of installation for end users a key factor? The higher the level of competence of the users, the lower the number.
7	**Usability**	0,5	**4**	Is ease of use a primary criteria for acceptance? The greater the importance of usability, the higher the number.
8	**Cross-Platform Support**	2	**3**	Is multi-platform support required? The more platforms that have to be supported (this could be browser versions, mobile devices, etc. or Windows/OSX/Unix), the higher the value.
9	**Easy To Change**	1	**3**	Does the customer require the ability to change or customize the application in the future? The more change / customization that is required in the future, the higher the value.
10	**Highly Concurrent**	1	**2**	Will you have to address database locking and other concurrency issues? The more attention you have to spend to resolving conflicts in the data or application, the higher the value.
11	**Custom Security**	1	**3**	Can existing security solutions be leveraged, or must custom code be developed? The more custom security work you have to do (field level, page level, or role based security, for example), the higher the value.
12	**Dependence On Third-Party Code**	1	**2**	Will the application require the use of third party controls or libraries? Like re-usable code, third party code can reduce the effort required to deploy a solution. The more third party code (and the more reliable the third party code), the lower the number.
13	**User Training**	1	**3**	How much user training is required? Is the application complex, or supporting complex activities? The longer it takes users to cross the suck threshold (achieve a level of mastery of the product), the higher the value.
	Calculated TCF		**0,96**	

Final use case point calculation belonging to the case study

Calculations From Other Tabs		
TCF	Technical Complexity Factor	0,96
EF	Environmental Factor	0,67
UUCP	Unadjusted Use Case Points	60
AW	Actor Weighting	8
Calculations of Use Case Points		
UCP	Use Case Points	43,4
Calculation of Estimated Effort		
Ratio	Hours of Effort per Use Case Point	28
	Hours of Effort	**1216**

CRITICAL SUCCESS FACTOR MATRICES

BACK

SELF INTERACTION MATRIX

CSF	7	6	5	4	3	2	1
1 Data Availability	V	V	O	O	V	A	
2 Data Organization	V	V	O	O	A		
3 Model Tracking	V	A	O	O			
4 User Management	O	O	X				
5 Project Tracking	X	O					
6 Application Management	A						
7 Result Management							

REACHABILITY MATRIX

CSF	1	2	3	4	5	6	7	Driving power
1 Data Availability	1	0	1	0	0	1	1	4
2 Data Organization	1	1	0	0	0	1	1	4
3 Model Tracking	0	1	1	0	0	0	1	3
4 User Management	0	0	0	1	1	0	0	2
5 Project Tracking	0	0	0	1	1	0	1	3
6 Application Management	0	0	1	0	0	1	0	2
7 Result Management	0	0	0	0	1	1	1	3
Dependance	2	2	3	2	3	4	5	

First iteration to obtain the level of the case study

CSF	Reachability set	Antecedent set	Intersection set	Level
1	1,3,6,7	1,2	1	
2	1,2,6,7	2,3	2	
3	2,3,7	1,3,6	3	
4	4,5	4,5	4,5	**I**
5	4,5	4,5,7	4,5	**I**
6	3,6	1,2,6,7	6	
7	5,6,7	1,2,3,5,7	5,7	

Second iteration to obtain the level of the case study

CSF	Reachability set	Antecedent set	Intersection set	Level
1	1,3,6,7	1,2	1	
2	1,2,6,7	2,3	2	
3	2,3,7	1,3,6	3	
6	3,6	1,2,6,7	6	**II**
7	6,7	1,2,3,7	7	**II**

Second iteration to obtain the level of the case study

CSF	Reachability set	Antecedent set	Intersection set	Level
1	1,3	1,2	1	**III**
2	1,2	2,3	2	**III**
3	2,3	1,3	3	**III**

Interpretive Structural Model

BACK

KPI Definition Table

BACK

CSF	GOAL	KPI	FORMULA
3. Model tracking	**G8**: Obtaining the type of the model **G3**: Enhancing the performance of the solution	Model-Solution ratio	$\frac{Number\ of\ SOLUTIONS}{Number\ of\ MODELS}$
1. Data Availability	**G11**: Ensuring project has data	Data creation speed	$\frac{Number\ of\ instances\ of\ DATA}{Time\ Unit}$
2. Data Organization	**G10**: Increasing the quality of data **G6**: Fostering data has summary	Summary creation speed	$\frac{Number\ of\ SUMMARIES}{Time\ Unit}$
7. Result management	**G1**: Achieving the result **G9**: Fostering the feedback	Result-Feedback ratio	$\frac{Number\ of\ instances\ of\ FEEDBACK}{Number\ of\ instances\ of\ RESULT}$
6. Application management	**G2**: Accomplishing application has solution **G3**: Enhancing the performance of the solution	Average performance	$\frac{\sum_{i=1}^{Number\ of\ SOLUTIONS} PERFORMANCE_i}{Number\ of\ SOLUTIONS}$
5. Project tracking	**G4**: Conserving the end date of the project **G5**: Controlling the status of the project	Average project duration	$\frac{\sum_{i=1}^{Number\ of\ PROJECTS} (END\ DATE_i - START\ DATE_i)}{Number\ of\ PROJECTS}$
4. User management	**G7**: Maintaining the users	User creation speed	$\frac{Number\ of\ USERS}{Time\ Unit}$

KPI DESIGN

BACK

DATA CREATION SPEED
CODE
VALUE
>= 10/MONTH
>= 5/MONTH
>= 2/MONTH
STAKEHOLDER
PROVIDES
DATA
HAS
PROJECT
ENSURING
HAS_UNIQUE
HAS
NAME
VERSION
FILE
TYPE
CLASSIFICATION
CREATION DATE
UPDATE DATE
DESCRIPTION
SIZE
FORMAT
QUALITY
- STRUCTURED DATA
- UNSTRUCTURED DATA
- RANDOM
- DETERMINISTIC
- STRUCTURED DATA
- ATTRIBUTES
- DATABASE
- UNSTRUCTURED DATA
- IMAGES
- VIDEO FOOTAGE
- AUDIO
- HANDWRITTEN NOTE
- LOW
- HIGH

DATA SCIENTIST
PRE-PROCESS
EXTRACTS
CLEANS
DATA
SUMMARY CREATION SPEED
CODE
VALUE
>= 5/MONTH
>= 2/MONTH
>= 0/MONTH
FOSTERING
HAS
HAS
HAS_UNIQUE
SUMMARY
HAS
FILE
CREATION DATE
DESCRIPTION
VALIDITY
- TRUE
- FALSE
VERSION
FILE
TYPE
- STRUCTURED DATA
- UNSTRUCTURED DATA
CLASSIFICATION
- RANDOM
- DETERMINISTIC
CREATION DATE
UPDATE DATE
DESCRIPTION
SIZE
FORMAT
- STRUCTURED DATA
- ATTRIBUTES
- DATABASE
- UNSTRUCTURED DATA
- IMAGES
- VIDEO FOOTAGE
- AUDIO
- HANDWRITTEN NOTE
QUALITY
INCREASING
- LOW
- HIGH
NAME

PROJECT
HAS_UNIQUE
NAME
HAS
STATUS
- FINISHED
- IN PROGRESS
START DATE
END DATE
PRE-PROCESSING TOOL
SOLUTION VALIDATION
HAS
DATA
RESULT
HAS
UPDATE DATE
FILE
CREATION DATE
VERSION
TYPE
FEEDBACK
HAS
COMMENT
DATE
ACHIEVING
FOSTERING
DATA SCIENTIST
POST-PROCESS
EVALUATES
RELEASES
RESULT-FEEDBACK RATIO
CODE
VALUE
>= 1.5
>= 1.3
.>= 1

UPDATE DATE
FILE
DESCRIPTION
VERSION
CREATION DATE
PERFORMANCE
HAS
SOLUTION
ACCOMPLISHING
HAS
ENHANCING
AVERAGE PERFORMANCE
CODE
VALUE
>= 0.8
>= 0.5
.>= 0.3
DATA
HAS_UNIQUE
HAS
NAME
VERSION
FILE
TYPE
CLASSIFICATION
CREATION DATE
UPDATE DATE
DESCRIPTION
SIZE
FORMAT
QUALITY
- STRUCTURED DATA
- UNSTRUCTURED DATA
- RANDOM
- DETERMINISTIC
- STRUCTURED DATA
- ATTRIBUTES
- DATABASE
- UNSTRUCTURED DATA
- IMAGES
- VIDEO FOOTAGE
- AUDIO
- HANDWRITTEN NOTE
- LOW
- HIGH
HAS
VERSION
CREATION DATE
TOOL
VERSION CONTROL SYSTEM
UPDATE DATE
- GIT
- DVC
- CODECOMMIT
- SOURCETREE
HAS
APPLICATION
PROCESS
BUILDS
UPDATES
DETERMINES
TYPE
HAS
DATA SCIENTIST
NAME
HAS_UNIQUE
MODEL

CODE	VALUE
	>= 6 MONTHS
	>= 1 YEAR
	.>= 2 YEARS

MANAGES
CREATES
EDITS
DELETES
USER CREATION SPEED
CODE
VALUE
>= 20/MONTH
>= 10/MONTH
.>= 4/MONTH
ADMINISTRATOR
MAINTAINING
IS
USER
HAS
HAS_UNIQUE
NAME
E-MAIL
PASSSWORD
ROLE
IDENTIFICATION
- ADMINISTRATOR
- DATA SCIENTIST
- STAKEHOLDER

WORK PRODUCT CARDS

BACK

Goal Diagram

Visual modeling of requirements

<<Sketch>>

<<Essentials>>

<<Enhanced>>

<<Expanded>>

<< The goal diagram shows the hierarchy of goals, starting from a global goal and its subrogation in the other goals and requirements, in order to concretely put them into practice. This diagram seeks to represent the organization's goals together with other elements related to the future software. >>

Essential content:

- << Goals in thin-line parallelograms >>
- << Requirements on thick line parallelograms >>
- << Actors in hexagons >>
- << Hierarchy between goals and requirements with arrows connected by a circle >>

Describes:

- << Requirements: bounded >>

Input to:

- << Elicit goals >>
- << Elicit problems >>
- << Verify consistency >>

Output from:

- << Undestand the requirements >>

Patterns

- << Problem Analysis<Phase> >>
- << Analyst<Role> >>

Resources

- << Book: "THE UNC-METHOD REVISITED: ELEMENTS OF THE NEW APPROACH" by Carlos Mario Zapata J, UNAL, 2012>>

Cause-And-Effect Diagram

Visual modeling of requirements

<<Sketch>>

<<Essentials>>

<<Enhanced>>

<<Expanded>>

<< The cause-effect diagram is oriented to represent the different elements (causes) that contribute to generate a problem (effects). It is a powerful tool that allows us to detect problems and sub-problems of the organization, as well as the relationships between them. >>

Essential content:

- << Main problem enclosed in a box on the far right side of the diagram >>
- << Subproblems are the main thorns of the diagram, they are enclosed in a box. >>
- << Causes, which are not enclosed in boxes >>
- << Sub-causes, which are related to causes >>

Describes:

- << Requirements: bounded >>

Input to:

- << Elicit problems >>
- << Verify consistency >>

Output from:

- << Undestand the requirements >>

Patterns

- << Problem Analysis<Phase> >>
- << Analyst<Role> >>

Resources

- << Book: "THE UNC-METHOD REVISITED: ELEMENTS OF THE NEW APPROACH" by Carlos Mario Zapata J, UNAL, 2012>>

Process Diagram

Visual modeling of requirements

<<Essentials>>

<<Expanded>>

The process diagram is oriented to show the flow of processes and data in the system, identifying trigger and result events, as well as the actors involved in each of them.

Essential content:

- << Processes with rectangles >>
- << Actors with horizontal containers >>
- << Events with green arrows >>
- << Arrows with continuous line for process flow >>
- << Arrows with dashed line for data flow >>
- << Bullet figure to represent storages >>
- << Sheet figure to represent input sample >>

Describes:

- << Requirements: bounded >>

Input to:

- << Define process and sequence >>
- << Verify consistency >>

Output from:

- << Undestand the requirements >>

Patterns

- << Problem Analysis<Phase> >>
- << Analyst<Role> >>

Resources

- << Book: "THE UNC-METHOD REVISITED: ELEMENTS OF THE NEW APPROACH" by Carlos Mario Zapata J, UNAL, 2012>>

SOURCE CODE EXAMPLES

BACK

VIEW

```
JS script.js
JS script.js > ...
var idsUser = [
    'identification',
    'nameUser',
    'passwordUser',
    'emailUser',
    'roleUser',
]
var idsScientist = [
    'jobScientist',
    'experienceScientist',
    'backgroundScientist',
    "styleScientist"
]
```

```
JS script.js
JS script.js > ...
function formData(action){
    var formValues = {};
    if(action == "createUser"){
        idsUser.forEach(function(id){
            let name = $("#"+id).attr('name');
            let value = $("#"+id).val();
            if(name == "password"){
                value = CryptoJS.MD5(value);
            }
            formValues[name]=value;
        })
        let role = $("#"+idsUser[idsUser.length - 1]).val();
        if(role=="DATA SCIENTIST"){
            idsScientist.forEach(function(id){
                let name = $("#"+id).attr('name');
                let value = $("#"+id).val();
                formValues[name]=value;
            })
        }
    }
    addData('users',formValues);
}
```

```
JS script.js
JS script.js > ...
function appearScientist(){
    if($('#roleUser').val() == 'DATA SCIENTIST'){
        $('#formCreate').css("width","70%");
        $('.general-user').css("width","50%")
        $('.data-scientist').css("display","block");
        $('.data-scientist').css("width","50%");
    } else {
        $('#formCreate').css("width","30%");
        $('.general-user').css("width","100%")
        $('.data-scientist').css("display","none");
        $('.data-scientist').css("width","50%");
    }
}
```

CONTROLLER

MODEL

PS-BASED ESPECIFICATIONS

BACK

INSTANCES OF SOLUTION
Count
SOLUTION
INSTANCES OF MODEL
Count
MODEL
MODEL-SOLUTION RATIO
INSTANCES OF SOLUTION
INSTANCES OF MODEL
UPDATE DATE
FILE
DESCRIPTION
VERSION
CREATION DATE
PERFORMANCE
HAS
SOLUTION
ENHANCING
VERSION
CREATION DATE
TOOL
VERSION CONTROL SYSTEM
UPDATE DATE
HAS
OBTAINING
TYPE
HAS
HAS
APPLICATION
HAS
MODEL
HAS_UNIQUE
NAME
DATA
HAS_UNIQUE
HAS
PROCESS
BUILDS
UPDATES
DETERMINES
DATA SCIENTIST
NAME
VERSION
FILE
TYPE
CLASSIFICATION
CREATION DATE
UPDATE DATE
DESCRIPTION
SIZE
FORMAT
QUALITY

INSTANCES OF DATA
Count
DATA
TIME UNIT DATA
Max
Min
DATA
CREATION DATE
DATA
CREATION DATE
DATA CREATION SPEED
INSTANCES OF DATA
TIME UNIT DATA
STAKEHOLDER
PROVIDES
DATA
HAS_UNIQUE
HAS
HAS
PROJECT
ENSURING
NAME
VERSION
FILE
TYPE
CLASSIFICATION
CREATION DATE
UPDATE DATE
DESCRIPTION
SIZE
FORMAT
QUALITY

DATA SCIENTIST
PRE-PROCESS
EXTRACTS
CLEANS
DATA
HAS
HAS
HAS_UNIQUE
SUMMARY
VERSION
FOSTERING
FILE
TYPE
CLASSIFICATION
CREATION DATE
UPDATE DATE
DESCRIPTION
SIZE
FORMAT
QUALITY
INCREASING
NAME
HAS
FILE
CREATION DATE
DESCRIPTION
VALIDITY
INSTANCES OF SUMMARY
Count
SUMMARY
TIME UNIT SUMMARY
Max
Min
SUMMARY
CREATION DATE
SUMMARY
CREATION DATE
SUMMARY CREATION SPEED
INSTANCES OF SUMMARY
TIME UNIT SUMMARY

PROJECT
HAS
DATA
DATA SCIENTIST
HAS_UNIQUE
HAS
NAME
STATUS
START DATE
END DATE
PRE-PROCESSING TOOL
SOLUTION VALIDATION
RESULT
POST-PROCESS
EVALUATES
RELEASES
ACHIEVING
HAS
UPDATE DATE
FILE
CREATION DATE
VERSION
TYPE
FEEDBACK
HAS
COMMENT
DATE
FOSTERING

INSTANCES OF RESULT
Count
RESULT
INSTANCES OF FEEDBACK
Count
FEEDBACK
RESULT-FEEDBACK RATIO
INSTANCES OF FEEDBACK
INSTANCES OF RESULT

PERFORMANCE SUM
PERFORMANCE SUM
SOLUTION
PERFORMANCE
{SOLUTION}
INSTANCES OF SOLUTION
Count
SOLUTION
AVERAGE PERFORMANCE
PERFORMANCE SUM
INSTANCES OF SOLUTION

UPDATE DATE
FILE
DESCRIPTION
VERSION
CREATION DATE
PERFORMANCE
HAS
SOLUTION
ENHANCING
ACCOMPLISHING
HAS
VERSION
CREATION DATE
TOOL
VERSION CONTROL SYSTEM
UPDATE DATE
NAME
HAS
TYPE
HAS
HAS_UNIQUE
MODEL
HAS
APPLICATION
HAS
DATA
HAS_UNIQUE
HAS
PROCESS
BUILDS
UPDATES
DETERMINES
DATA SCIENTIST
NAME
VERSION
FILE
TYPE
CLASSIFICATION
CREATION DATE
UPDATE DATE
DESCRIPTION
SIZE
FORMAT
QUALITY

PROJECT
HAS
HAS_UNIQUE
HAS
NAME
STATUS
START DATE
END DATE
PRE-PROCESSING TOOL
SOLUTION VALIDATION
CONTROLING
CONSERVING
USER REQUIREMENT
EVALUATES
DATA SCIENTIST
HAS_UNIQUE
HAS
CODE
USER STORY
DESCRIPTION
STATUS

PROJECT SUM
PROJECT SUM
PROJECT
END DATE
PROJECT
START DATE
{PROJECT}
INSTANCES OF PROJECT
Count
PROJECT
AVERAGE PROJECT DURATION
PROJECT SUM
INSTANCES OF PROJECT

MANAGES
CREATES
EDITS
DELETES
ADMINISTRATOR
IS
USER
MAINTAINING
HAS
HAS_UNIQUE
CREATION DATE
NAME
E-MAIL
PASSSWORD
ROLE
IDENTIFICATION

INSTANCES OF USER
Count
USER
TIME UNIT USER
Max
Min
USER
CREATION DATE
USER
CREATION DATE
USER CREATION SPEED
INSTANCES OF USER
TIME UNIT USER

USER
ARISES
observation
Floor
MIN
Rand
MAX
normalValue
1
SIGMA
Sqrt
2
PI
Exp
observation
MU
2
2
SIGMA
2
normalValue
0.05
Yes
No
UPDATES
alert
UPDATES
alert
"A user arrived!!!"
existUsers
true
alert
"No user has arrived"
existUsers
false
INITIAL CONDITIONS
MU
10
SIGMA
4
MIN
1
MAX
20
PI
3.141592...

STAKEHOLDER
SHOWS UP
observation
Floor
MIN
Rand
MAX
MIN
normalValue
1
SIGMA
Sqrt
2
PI
Exp
observation
MU
2
2
SIGMA
2
normalValue
0.05
Yes
No
UPDATES
alert
UPDATES
alert
"A user arrived!!!"
existUsers
true
alert
"No user has arrived"
existUsers
false
INITIAL CONDITIONS
MU
10
SIGMA
4
MIN
1
MAX
20
PI
3.141592...

CLASS DIAGRAM

COMMUNICATION DIAGRAMS

BACK

Creates User

1. create() →

Administrator — User

Edits User

2. edit() →

Administrator — User

Deletes User

3. delete() →

Administrator — User

Cleans Data

4. clean() →

Data Scientist — Data

Extracts Summary

5. extract() →

Data Scientist — Summary

Provides Data

6. provide() →

Stakeholder — Data

Determines Model

7. determine() →

Data Scientist — Model

Builds Application

8. build() →

Data Scientist — Application

Updates Model

9. update() →

Data Scientist — Model

Releases result

10. release() →

Data Scientist — Result

STATE MACHINE DIAGRAMS

BACK

LESSONS LEARNED REGISTER

BACK

Team		Team #2 - Data Scientist		Date	08/06/2022	
Code	**Alpha**	**State**	**Situation**	**Lesson learned**	**Impact**	**Recommendation**
01	Team	Collaborating	The members of the team divided up the development of the work products independently.	Do not divide the work products completely and try to work tightly together.	HIGH	The work products can be distributed but socializing them constantly so that all members are aware of everything and consistency is not affected.
02	Way of Working	Working Well	Assemble all elements of the deliverable a few hours prior to the deadline	Assemble the elements of the deliverable one day or 6 hours before.	LOW	Export the different work products and merge those that are closely related, so that in the end you do not spend a lot of time in assembling the deliverable.
03	Team	Performing	Difficulties in understanding the correct syntax of some work products	Work daily on the diagrams and ask questions to the professor and the instructor.	VERY HIGH	At the moment of having syntax doubts with the work products, write down these doubts and, without fear, ask the teacher in class or the instructor in the counseling sessions.
04	Way of Working	Foundation Established	Unorganized work products	Create a shared folder to share work products so that all team members have access to them.	MODERATE	Use cloud storage and create work products in such a way that all members can contribute to them
05	Way of Working	In Use	Unorganized work products	List the work products	VERY LOW	Create a checklist with everything necessary for each delivery, listing the different work products, thus ensuring their traceability.
06	Team	Collaborating	Not always all team members can meet to work together and therefore cannot take evidence of the meeting	Assign responsibilities to the team members who could not enter and then gather all of us together to take the evidence of the meeting	LOW	Organize a common schedule, where all members have availability to meet and work.
07	Way of Working	In Use	In some consulting classes we often had nothing to ask the professor about the work, since we had not yet started the deliverable.	Start working as soon as possible on the deliverable and take full advantage of all advisory classes to gain feedback from the professor	MODERATE	Do not leave the work for the last days as the teacher's feedback is very important to deliver good work.
08	Team	Performing	Having doubts about the deliverable when there are no more consultancies	Quickly start the deliverable and ask questions in consultancy	VERY HIGH	Organize time and write down questions to ask in class.
09	Way of Working	In Use	Finding errors in the deliverable hours before the delivery deadline	Do not leave everything to the last	VERY LOW	When you finish assembling the deliverable check it thoroughly for errors
10	Way of Working	Foundation Established	Repeating and correcting many work products due to consistency	The pre-conceptual schema is a very important tool for consistency.	VERY HIGH	Always start with the pre-conceptual schema, then move on to the other work products.

IMPACT LIKERT	VERY LOW	LOW	MODERATE	HIGH	VERY HIGH

EVIDENCE OF THE MEETINGS

BACK

Discord
2022 - 1s
NUEVOS MENSAJES NO LEÍDOS
REQUISITOS
general-requisitos
foro-1
material
entregable-1
CANALES DE VOZ
Sala de estudio 1
Valentí... EN DIRECTO
Andrés Monsalve
Fredy Orozco
Sala de estudio 2
BASES-DE-DATOS
Screen 1
Voz conectada
Sala de estudio 1 / 2022 ...
Vídeo
Pantalla
San Valen
#5304
Sala de estudio 1
Pantalla de Valentín Osorio
720p 30FPS
EN DIRECTO
EN DIRECTO
Valentín ...
Fredy Orozco
Valentín Osorio
Andrés Mons...
Sala de estudio 1 - ...
2021 - 02 (6to seme...
8:22 p. m.
26/03/2022

Discord
2022 - 1s
general-requisitos
foro-1
material
entregable-1
CANALES DE VOZ
Sala de estudio 1
Andrés Monsalve
Fredy Orozco
Santiago Castro
Valentín Osorio
Sala de estudio 2
BASES-DE-DATOS
ANALISIS
POO
Voz conectada
Sala de estudio 1 / 2022 ...
Vídeo
Pantalla
San Valen
#5304
entregable-1
Buscar
El video es del 2019, tambien algo nuevo
Valentín Osorio hoy a las 12:00
Entregable_1_Checklist.pdf
124.40 KB
Fredy Orozco hoy a las 13:06
https://youtu.be/6_v3IbhNOXc
YouTube
OpenWebinars
QUÉ ES UN DATA SCIENTIST
Gabriel Vázquez
¿QUÉ ES UN DATA SCIENTIST?
Enviar mensaje a #entregable-1
EN LÍNEA — 10
Andrés Monsalve
Jugando a Google Chrome
Atlas BOT
Jugando a a!help • atlas.bot
Fredy Orozco
GitBot BOT
Viendo GitHub Universe
Hydra BOT
Escuchando .help
MEE6 BOT
Santiago Castro
SergioBz
Statbot BOT
Viendo s?help | statbot.net
Valentín Osorio
entregable-1 - Disc...
Entregable 1 Check...
8:32 p. m.
21/03/2022

Discord
2022 - 1s
general-requisitos
foro-1
material
entregable-1
CANALES DE VOZ
Sala de estudio 1
Valentí...
EN DIRECTO
Andrés Monsalve
Fredy Orozco
Sala de estudio 2
BASES-DE-DATOS
ANALISIS
Screen 1
Voz conectada
Sala de estudio 1 / 2022 ...
Vídeo
Pantalla
San Valen
#5304
Sala de estudio 1
Pantalla de Valentín Osorio
720p 30FPS
EN DIRECTO
Valentín ...
Fredy Orozco
Valentín Osorio
Andrés Mons...
Sala de estudio 1 - ...
8:02 p. m.
22/03/2022

Discord
2022 - 1s
general-requisitos
foro-1
material
entregable-1
CANALES DE VOZ
Sala de estudio 1
Valentí...
EN DIRECTO
Andrés Monsalve
Fredy Orozco
Santiago Castro
Sala de estudio 2
BASES-DE-DATOS
ANALISIS
Screen 1
Voz conectada
Sala de estudio 1 / 2022 ...
Vídeo
Pantalla
San Valen
#5304
HAS
INTERPRETS
APPEARS
VARIETY
VELOCITY
QUALITY
INFORMATION
HAS
HAS
AMOUNT
VALIDITY
EN DIRECTO
Sala de estudio 1 - ...
9:18 p. m.
23/03/2022

Discord
2022 - 1s
general-requisitos
foro-1
entregable-1
foro-2
entregable-2
CANALES DE VOZ
Sala de estudio 1
Andrés Monsalve
Fredy Orozco
Santiago Castro
Valentín Osorio
Sala de estudio 2
BASES-DE-DATOS
ANALISIS
POO
Voz conectada
Sala de estudio 1 / 2022 ...
Vídeo
Pantalla
San Valen
#5304
Fredy Orozco 02/04/2022
JFrameForn
Valentín Osorio 02/04/2022
https://www.mtholyoke.edu/courses/quenell/s2003/ma139/js/count.html
11 de abril de 2022
Valentín Osorio 11/04/2022
https://bibliotecas.unal.edu.co/
28 de abril de 2022
Andrés Monsalve 28/04/2022
Business
Engineering
Data analyst
Research scientist
ML engineer
Developer
Data engineer
Data scientist
Ingesta de datos
Validación de datos
Preparación de datos
Entrenamiento de modelo
Evaluación de modelo
Validación de modelo
Despliegue de modelo
Interfaz de usuario
Pasos y roles en el flujo de trabajo de data science
(Design Patterns in Machine Learning).
Enviar mensaje a #general-requisitos
EN LÍNEA — 10
Andrés Monsalve
Jugando a Google Chrome
Atlas BOT
Viendo /setup | atlas.bot
Fredy Orozco
GitBot BOT
Viendo GitHub Universe
Hydra BOT
Escuchando .help
MEE6 BOT
Santiago Castro
SergioBz
Statbot BOT
Valentín Osorio
9:27 p. m.
1/05/2022

Discord
2022 - 1s
entregable-1
foro-2
entregable-2
CANALES DE VOZ
Sala de estudio 1
Valentí...
EN DIRECTO
Andrés Monsalve
Santiago Castro
Sala de estudio 2
BASES-DE-DATOS
ANALISIS
POO
Screen 1
Voz conectada
Sala de estudio 1 / 2022 ...
Vídeo
Pantalla
San Valen
#5304
CAUSE-AND-EFFECT DIAGRAM
SP2: Summary does not have validity
C4: Application does not have version control system
C5: Data scientist does not have experience
Solution has low performance
C3: Stakeholder provides data wrongly
C1:Data scientist evaluates user requirements hardly
EN DIRECTO
9:01 p. m.
2/05/2022

	C1	C3	C5	C6	C9	C10
P1			G1, G4, G6, R3	G1, G4, G6, R3		
P2			G4, R4	G4, R4		
P3			G4, G6, R4	G4, G6, R4		
P4	G3, G4, R1					
P5						
P6					G2, G5, R2	
P7						G4, R7
P8						G2, G5, R7
P9						G2, G5, R7
P10						G4, R7
P11		G4, R7, R6				
P12						G4, R6
P13		G4, R10, R7, R6				
P14		G4, R9, R7, R6				

Discord
2022 - 1s
REQUISITOS
general-requisitos
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entregable-2
CANALES DE VOZ
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Andrés Monsalve
Fredy Orozco
Valentín Osorio
Sala de estudio 2
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Pantalla
San Valen
#5304
general-requisitos
ijgi-08-00123-v2.pd...
micro_proyecto_3 -...
Sala de estudio 1 - ...
8:12 p. m.
23/05/2022

Discord
2022 - 1s
entregable-1
foro-2
entregable-2
CANALES DE VOZ
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Fredy Orozco
Santiago Castro
Sala de estudio 2
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Pantalla
San Valen
#5304
Sala de estudio 1
Pantalla de Valentín Osorio
720p 30FPS
EN DIRECTO
Valentín ...
Valentín Osorio
Fredy Orozco
Santiago Castro
Sala de estudio 1 - ...
8:13 p. m.
25/05/2022

Discord
2022 - 1s
foro-1
entregable-1
foro-2
entregable-2
CANALES DE VOZ
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Valentí...
EN DIRECTO
Andrés Monsalve
Fredy Orozco
Sala de estudio 2
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#5304
Sala de estudio 1
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720p 30FPS
EN DIRECTO
Valentín ...
Andrés Monsalve
Valentín Osorio
Fredy Orozco
quiz3.pdf y 3 págin...
finales
Sala de estudio 1 - ...
8:14 p. m.
29/05/2022

Discord
2022 - 1s
material
foro-1
entregable-1
foro-2
entregable-2
entregable-4
CANALES DE VOZ
Sala de estudio 1
Andrés Monsalve
Fredy Orozco
Valentín Osorio
Sala de estudio 2
BASES-DE-DATOS
ANALISIS
general
Voz conectada
Sala de estudio 1 / 2022 ...
Vídeo
Pantalla
San Valen
#5304
general-requisitos
Buscar
8 de junio de 2022
NUEVO
Santiago Castro hoy a las 21:09
Al parecer se puede abrir una BD en el navegador
https://picodotdev.github.io/blog-bitix/2020/07/las-3-formas-de-guardar-datos-en-el-navegador-con-javascript/
Blog Bitix
Las 3 formas de guardar datos en el navegador con JavaScript
En el navegador del usuario hay varias formas de guardar información con diferentes propósitos que perdure entre las visitas realizadas en varias sesiones. Los navegadores ofrecen tres formas de guardar datos: cookies, LocalStorage y SessionStorage e IndexedDB cada una con diferentes características y utilizables con código JavaScript. ...
Enviar mensaje a #general-requisitos
EN LÍNEA — 9
Andrés Monsalve
Jugando a Google Chrome
Atlas BOT
Viendo /setup | atlas.bot
Fredy Orozco
GitBot BOT
Viendo GitHub Universe
Hydra BOT
Escuchando .help
MEE6 BOT
Santiago Castro
Statbot BOT
Viendo s?help | statbot.net
Valentín Osorio
DESCONECTADO — 1
SergioBz
Entrega 1
Mathematical Nota...
general-requisitos -...
9:10 p. m.
8/06/2022

Discord
2022 - 1s
entregable-1
foro-2
entregable-2
entregable-4
CANALES DE VOZ
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Santiag... EN DIRECTO
Valentín Osorio
Sala de estudio 2
BASES-DE-DATOS
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Sala de estudio 1 / 2022 ...
Vídeo
Pantalla
San Valen
#5304
Entregable_4_FINA...
Sala de estudio 1 - ...
Documento1 - Word
trabajo_escrito_silic...
6:02 p. m.
9/06/2022

Discord
2022 - 1s
REQUISITOS
general-requisitos
material
foro-1
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CANALES DE VOZ
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Fredy Orozco
Valentín Osorio
Sala de estudio 2
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San Valen
#5304
Sala de estudio 1 - ...
6:24 p. m.
14/06/2022

Discord
2022 - 1s
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entregable-2
entregable-4
CANALES DE VOZ
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Valentí... EN DIRECTO
Andrés Monsalve
Fredy Orozco
MEE6
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BASES-DE-DATOS
ANALISIS
Screen 1
Voz conectada
Sala de estudio 1 / 2022 ...
Vídeo
Pantalla
San Valen
#5304
Data Scientist
AVERAGE PERFORMANCE
CODE
VALUE
>= 0.8
>= 0.5
>= 0.3
UPDATE DATE
FILE
DESCRIPTION
VERSION
CREATION DATE
PERFORMANCE
HAS
SOLUTION
ACCOMPLISHING
ENHANCING
DATA
HAS_UNIQUE
NAME
TYPE
CLASSIFICATION
- STRUCTURED DATA
- UNSTRUCTURED DATA
- RANDOM
- DETERMINISTIC
- ATTRIBUTES
- DATABASE
- IMAGES
- VIDEO FOOTAGE
- AUDIO
- HANDWRITTEN NOTE
SIZE
FORMAT
QUALITY
- LOW
- HIGH
APPLICATION
PROCESS
BUILDS
UPDATES
DETERMINES
DATA SCIENTIST
TOOL
VERSION CONTROL SYSTEM
- GIT
- DVC
- CODECOMMIT
- SOURCETREE
Sala de estudio 1 - ...
10:38 p. m.
22/06/2022

KANBAN BOARD

BACK

GOAL	TO DO	DOING	DONE	
			Epic 1: Gathering stakeholder and determine the value stakeholder Responsible: Diego Valentin Osorio Marin, Freddy Mauricio Orozco Lopez	**Opportunity** **Identified** 1. An opportunity was identified 2. Stakeholders are aware of an opportunity 3. Stakeholders are willing to make an investment to pursue an opportunity 4. Stakeholders are willing to make some time and effort for the opportunity **1/5**
			Epic 2: Making the contextual diagram Responsible: Diego Valentin Osorio Marin	**Stakeholders** **Recognised** 1. Stakeholders identified 2. The stakeholders are willing to become involved in the opportunity 3. Stakeholders 4. Understanding of stakeholder representatives defined **1/5**
			Epic 3: Underlying and organizing the Agile Plan Responsible: Team	
			Epic 4: Filling the extension cards Responsible: Freddy Mauricio Orozco Lopez	
			Epic 5: Ordering and updating the organizational chart Responsible: Team	
			Epic 6: Verify Consistency Responsible: Team	**Stakeholders** **Represented** 1. The representatives of stakeholders are aware of the concepts, goals, and objectives of the opportunity 2. Stakeholder representatives are willing to make some time and effort for the opportunity 3. The management approach was agreed upon 4. Stakeholder representatives should be very approachable **2/5**
			Epic 7: Meeting the domain model Responsible: Freddy Mauricio Orozco Lopez	**Requirements** **Conceived** 1. The users' list is been explored to 2. Initial user stakeholder 3. Initial processes were identified **1/5**
			Epic 8: Ordering, organizing and updating the conceptual schema Responsible: Team	
			Epic 9: Ordering, organizing and updating the black-pebble pro-conceptual schema Responsible: Diego Valentin Osorio Marin	
			Epic 10: Ordering, organizing and updating the structured of impactability table Responsible: Team	**Software System** **Architecture Selected** 1. Architecture selected/confirmed 2. Well-defined interfaces 3. System Modules known 4. Technology known 5. Key risks and risk mitigation plan 6. Key risks are manageable **1/6**
			Team 11: Making Event Diagram Responsible: Diego Valentin Osorio Marin	
			Team 12: Making Course and Effect Diagram Responsible: Jaime Andrés Montoya Ballesteros, Diego Valentin Osorio Marin	
			Team 13: Verify Consistency Responsible: Santiago Cadavid Tabares	
			Epic 14: Ordering, organizing and updating the problems pro-conceptual schema Responsible: Diego Valentin Osorio Marin	
			Epic 15: Taking extent of the backlog board Responsible: Diego Valentin Osorio Marin, Jaime Andrés Montoya Ballesteros	**Work** **Initiated** 1. The initiation of the work is agreed 2. Stakeholders are confident 3. Backlogs are and Working Values are agreed 4. Planning of work is starting **1/6**
			Epic 16: Taking the extent extension square complete Responsible: Santiago Cadavid Tabares	
			Epic 17: Taking extent proto-tests of the extension of the backlogs Responsible: Diego Valentin Osorio Marin	
			Epic 18: Review of extension with the experts Responsible: Team	
			Epic 19: Verify initial extension Responsible: Team	**Work** **Prepared** 1. The creation of the work is begun 2. Stakeholders were clarified 3. Backlogs are working, initial Values are agreed 4. Planning of work is starting **2/6**
			Epic 20: Constant meetings Responsible: Team	
			Epic 21: Verification Responsible: Team	
			Part V: Elaboration of KANBAN Board Responsible: Diego Valentin Osorio Marin	**Team** **Seeded** 1. The team's mission is clear 2. Initial team roles are clear, and the team is forming 3. Initial team Values are identified 4. Initially the team has been determined **1/5**
				Team **Formed** 1. Enough members recruited 2. Roles established 3. Initial team Values 4. Members memorized 5. Initial communication established 6. accomplishing agreements 7. Initial team Values 8. Current collaborative relationships established 9. Initial team Values are agreed 10. Members commit to teamwork **2/5**
			Epic 22: Interviews to the Software Control Delivery Responsible: Freddy Mauricio Orozco Lopez, Diego Valentin Osorio Marin	**Way of Working** **Principles Established** 1. The principles and conditions 2. Principles are agreed 3. Principles and conditions were 4. Principles and tools were agreed 5. Tools are 6. The system is using the agreed principles and tools **1/6**
			Epic 23: Define points and sequence Responsible: Santiago Cadavid Tabares, Diego Valentin Osorio Marin	**Way of Working** **Foundation Established** 1. Way of working is tailor selected 2. Way of working is agreed and agreed 3. Way of working prototype is tested 4. Way of working is understood 5. Way of working is 6. Way of working is **2/6**
			Epic 24: Elaboration of Event Interaction Graph Responsible: Santiago Cadavid Tabares	
			Epic 25: Elaboration of Process Diagram Explanatory Table Responsible: Santiago Cadavid Tabares	
			Epic 26: Creation of Business Lexicon Responsible: Team	
			Epic 27: Elaboration of Data Dictionary Responsible: Freddy Mauricio Orozco Lopez	
			Epic 28: Elaboration of Business Lexicon Responsible: Freddy Mauricio Orozco Lopez	
			Epic 29: Elaboration of Event Diagram Responsible: Diego Valentin Osorio Marin	
			Epic 30: Elaboration of Course and effects Diagram Responsible: Diego Valentin Osorio Marin	
			Epic 31: Work goals Responsible: Team	
			Part VI: Elaboration Responsible: Team	
			Epic 32: Elaboration of Pro-conceptual Scenario Responsible: Diego Valentin Osorio Marin, Santiago Cadavid Tabares, Freddy Mauricio Orozco Lopez	
			Epic 33: Elaboration of Pro-conceptual Scenario Transcription Table Responsible: Jaime Andrés Montoya Ballesteros	
			Epic 34: Elaboration of Problem-based Pro-conceptual Schema Responsible: Diego Valentin Osorio Marin	
			Epic 35: Elaboration of Problem-based Pro-conceptual Schema Transcription Table Responsible: Jaime Andrés Montoya Ballesteros	
			Epic 36: Elaboration of Percentage-assignment goals Responsible: Jaime Andrés Montoya Ballesteros	
			Epic 37: Elaboration of Percentage-assignment to problems Responsible: Jaime Andrés Montoya Ballesteros	
			Epic 38: Verify Consistency Responsible: Jaime Andrés Montoya Ballesteros	
			Epic 39: Review the wrap of working Responsible: Diego Valentin Osorio Marin	**Work** **Started** 1. Development started 2. Progress is being made 3. Work is being progressed 4. Tasks being progressed **3/6**
			Epic 40: Assess the team Responsible: Diego Valentin Osorio Marin	
			Epic 41: Elaboration of Method assessment template Responsible: Diego Valentin Osorio Marin	
			Epic 42: Design tests Responsible: Diego Valentin Osorio Marin	
			Epic 43: Report progress of the team Responsible: Team	**Team** **Collaborating** 1. Works as one unit 2. Communicates well and trained 3. Communicates well 4. Communicates well **3/5**
			Epic 44: Elaboration of Team Diagram Responsible: Diego Valentin Osorio Marin	
			Epic 45: Continuous elaboration of Kanban Board Responsible: Diego Valentin Osorio Marin	
			Epic 46: Continuous elaboration of Kanban Minutes Report Responsible: Diego Valentin Osorio Marin	**Way of Working** **In Use** 1. Practicing its tools in use 2. Practicing its principles 3. Adapting its practices 4. Practices are consistent 5. Practices commitment to a form of working together 6. Practices are consistent **3/6**
			Epic 47: Ordering extension of the meetings Responsible: Diego Valentin Osorio Marin	
			Epic 48: Verify Consistency Responsible: Team	
			Epic 49: Verify Consistency Responsible: Jaime Andrés Montoya Ballesteros	
			Epic 50: Elaboration of User Story Agreement Responsible: Diego Valentin Osorio Marin	**Stakeholders** **In Agreement** 1. Minimal expectations agreed 2. Stakeholders are willing 3. Stakeholders 4. Stakeholders consent 5. Stakeholders are willing 6. Stakeholders are all in agreement **4/6**
			Epic 51: Elaboration of Scenario Effect Responsible: Team	
			Epic 52: Elaboration of Kanban Lexicon Responsible: Freddy Mauricio Orozco Lopez	**Opportunity** **Solution Needed** 1. Solution identified 2. Stakeholders needs understood 3. Solution is a viable option 4. Solution 5. Solution satisfies stakeholder needs 6. Solution is a viable option **4/6**
			Epic 53: Elaboration of Elaboration structured model Responsible: Diego Valentin Osorio Marin	
			Epic 54: Elaboration of Kanban Lexicon Responsible: Diego Valentin Osorio Marin	
			Epic 55: Elaboration of Elaboration structured model Responsible: Diego Valentin Osorio Marin	
			Epic 56: Elaboration of UTP design Responsible: Diego Valentin Osorio Marin, Freddy Mauricio Orozco Lopez	**Opportunity** **Value Established** 1. Opportunity value established 2. Business value established 3. Business value is understood 4. Business value is understood **5/6**
			Epic 57: Verify Consistency Responsible: Jaime Andrés Montoya Ballesteros	
			Epic 58: Verify Consistency Responsible: Jaime Andrés Montoya Ballesteros	**Requirements** **Coherent** 1. Requirements consist 2. Requirements are not 3. Multiples user 4. Requirements are 5. Requirements are 6. Requirements are 7. Requirements are 8. Tasks break & agreed, no what is **2/8**
			Epic 59: Elaboration of Use Cases Diagram Responsible: Santiago Cadavid Tabares, Freddy Mauricio Orozco Lopez, Jaime Andrés Montoya Ballesteros	
			Epic 60: Elaboration of Event Interface Inventory Responsible: Jaime Andrés Montoya Ballesteros	
			Epic 61: Elaboration of Other Organizational Chart Responsible: Team	
			Epic 62: Elaboration of Mess Process Diagram Responsible: Diego Valentin Osorio Marin	**Software System** **Demonstrable** 1. Key architecture characteristics 2. System demonstrated & performance 3. Critical data 4. Critical data configurations 5. Critical interfaces demonstrated 6. Critical interfaces 7. Critical interfaces 8. Architecture proven in use **2/8**
			Epic 63: Elaboration of Use Cases Explanatory Tables Responsible: Diego Valentin Osorio Marin, Santiago Cadavid Tabares	
			Epic 64: Elaboration of Mess Process Diagram Explanatory Table Responsible: Team	
			Epic 65: Verify Consistency Responsible: Team	
			Epic 66: Elaboration of Data Dictionary Responsible: Freddy Mauricio Orozco Lopez	
			Epic 67: Elaboration of Kanban Pictograph Responsible: Santiago Cadavid Tabares, Freddy Mauricio Orozco Lopez, Jaime Andrés Montoya Ballesteros	
			Epic 68: Elaboration of Kanban Process Cycle Responsible: Diego Valentin Osorio Marin	**Work** **Under Control** 1. Tasks being completed 2. Work is being carried out 3. Work is being carried out 4. Work is being carried out 5. Progress measured 6. Work is being completed by over **4/6**
			Epic 69: Elaboration of Kanban Board Responsible: Diego Valentin Osorio Marin	**Way of Working** **In Place** 1. Used by whole team 2. Practices are used 3. Practices are adapted by whole team **4/6**
			Epic 70: Continuous Elaboration of Kanban Board Responsible: Diego Valentin Osorio Marin	
			Epic 71: Continuous Elaboration of Kanban Minutes Report Responsible: Diego Valentin Osorio Marin	
			Epic 72: Continuous Elaboration of Kanban of the Meetings Responsible: Diego Valentin Osorio Marin	
			Epic 73: Verify Consistency Responsible: Diego Valentin Osorio Marin	**Requirements** **Acceptable** 1. Acceptance criterion specified 2. Acceptance criteria are met 3. Tests are specified 4. Tests are specified 5. Tests are specified 6. Tests are specified **4/6**
			Epic 74: Elaboration of Mess Diagram Responsible: Diego Valentin Osorio Marin	
			Epic 75: Elaboration of Process Diagram Responsible: Diego Valentin Osorio Marin	
			Epic 76: Elaboration of Mess Diagram Responsible: Freddy Mauricio Orozco Lopez	
			Epic 77: Elaboration of communication diagrams Responsible: Jaime Andrés Montoya Ballesteros, Freddy Mauricio Orozco Lopez	
			Epic 78: Elaboration of Kanban Diagram Responsible: Jaime Andrés Montoya Ballesteros	
			Epic 79: Capacity for functionality of the software system Responsible: Team	
			Epic 80: Elaboration of Lanzarote barrel kaizen Responsible: Team	**Team** **Performing** 1. Consistently working 2. Consistently adapting to change 3. Consistently performing 4. Respect and Performing 5. Mature and Performing 6. Media continuously announced **6/6**
			Epic 81: Continuous Elaboration of Kanban Board Responsible: Diego Valentin Osorio Marin	
			Epic 82: Continuous Elaboration of Kanban Minutes Report Responsible: Diego Valentin Osorio Marin	
			Epic 83: Continuous Elaboration of Kanban of the Meetings Responsible: Diego Valentin Osorio Marin	**Way of Working** **Working Well** 1. Practicesare adapting easily 2. Practices are adapting easily 3. Tools adapting easily 4. Practices are 5. Consistently in use **5/6**

Alphas Advance Report

BACK

State	Summary of the achievement	Task	Date/Duration	Contents/Observations
Opportunity Identified Opportunity is identified when the team has a clear understanding of the problem they are trying to solve. Opportunity is identified when the team has a clear understanding of the problem they are trying to solve. Opportunity is identified when the team has a clear understanding of the problem they are trying to solve. 7.0	The team got information about Data Systems from the website, forms, and videos from Nordcloud.	Checking information and interviews about Data Systems	Start date: 19/05/2022 1 hours	The team got the information from an article, a book, some videos and interviews with Nordcloud.
		Collecting and organizing the digital data	Start date: 20/05/2022 2 hours	The team organized the information they gotten. A document is have been summarized date
		Making the controlled stamp	Start date: 20/05/2022 10 hours and 20 minutes	Active, attributes, stimulus and responses, events and conditionals are captured.
Implication Represented All the learns from the Requirements Elicitation Process are represented. Represented means that the information of the value is available for everyone. 2.0	All the learns from the Requirements Elicitation Process are represented. Represented means that the information of the value is available for everyone.	Filling the elicitation cards	Start date: 26/05/2022 2 hours	A solar cards, 9 object cards, 6 functionality cards
		Making a updating the organizational chart	Start date: 26/05/2022 1 hours	There is a shared drive were all the teams organized their roles in the organizational chart.
		Verify Consistency	Start date: 26/05/2022 2 hours	Checked that the information obtained and what was being represented by the team was congruent
Requirements Consented Consented means that the team is aware of the needs, wants and expectations of the stakeholders. Consented means that the team is aware of the needs, wants and expectations of the stakeholders. Consented means that the team is aware of the needs, wants and expectations of the stakeholders. 1.0	The different artifacts from the elicitation cards are created and stored.	Making, organizing and updating the document traceability table	Start date: 23/06/2022 10 hours	Document all the information contained in the precomputational scheme
		Verify Consistency	Start date: 27/06/2022 3 hours	Checked that the information obtained and what was being represented by the team was congruent.
		Making Goal Diagram	Start date: 28/06/2022 1 hours	8 goals, 7 requirements
		Making Cause-and-Effect Diagram	Start date: 27/06/2022 1 hours	Problems being consistent with elicitation cards and with precomputational schema
		Making, organizing and updating the problems pre-computational schema	Start date: 28/06/2022 1 hours and 22 minutes	Problems being consistent with elicitation cards and causes and effect diagram
Software System Architecture Selected Architecture selected means that the team has selected a set of software components and connections that will be used to build the system. Architecture selected means that the team has selected a set of software components and connections that will be used to build the system. Architecture selected means that the team has selected a set of software components and connections that will be used to build the system. 1.0	The team decided about the technologies needed for the development of the prototype.	Making the domain model	Start date: 28/05/2022 4 hours	13 classes
		Making, organizing and updating the domain model pre-computational schema	Start date: 28/05/2022 1 hours and 30 minutes	8 drawings; 6 stakeholders, 6 implications, 1 event, 1 conditional
		Making a Sequence Diagram for the executable pre-conceptual schemas	Start date: 28/05/2022 1 hour and 30 minutes	8 executable pre-conceptual diagrams were made.
Work Proposal Proposal means that the team has a clear understanding of the problem they are trying to solve. Proposal means that the team has a clear understanding of the problem they are trying to solve. Proposal means that the team has a clear understanding of the problem they are trying to solve. 2.0	In order to determop the deliverables we attended some classes to get feedback	Study class material	Start date: 08/06/2022 4 hours	Studying the UAC Method and Documents related to the class
		Attend classes with the teacher	Start date: 22/06/2022 2 hours	The teacher was asked several questions about the pre-conceptual schema.
		Conduct meetings	Start date: 21/06/2022 10 hours	A meeting was held to work together and tasks were assigned
Team Formed Formed means that the team has a clear understanding of their roles and responsibilities and has established a set of ground rules for working together. Formed means that the team has a clear understanding of their roles and responsibilities and has established a set of ground rules for working together. Formed means that the team has a clear understanding of their roles and responsibilities and has established a set of ground rules for working together. 2.0	The team is composed of four members: Jorge Gonzalez Gomez, Miguel Angel Rodriguez Calzada, Pablo Martin Chicharro Garcia and Jaime Andrés Monzalve Barbadanes.	Conduct meetings	Start date: 21/06/2022 10 hours	A meeting was held to work together and tasks were assigned
		Taking control of the kanban board	Start date: 27/06/2022 1 hours	Tasks were distributed at the beginning of each meeting.
		Taking the alpha advance report updated	Start date: 27/06/2022 2 hours and 30 minutes	The progress of each activity was reviewed at each meeting.
		Collection of KANBAN Board	Start date: 19/06/2022 2 hours	21 Tasks were made
Work of Working Presentation Ready Presentation Ready means that the team has a clear understanding of the problem they are trying to solve. Presentation Ready means that the team has a clear understanding of the problem they are trying to solve. Presentation Ready means that the team has a clear understanding of the problem they are trying to solve. 2.0	We try to do a daily meeting in order to evaluate the progress and to get feedback	Conduct meetings	Start date: 19/06/2022 40 hours	The team met at least once a day.
		Taking some pictures to show evidence of the meetings	Start date: 20/06/2022 10 minutes	There are 3 images of evidence of virtual meetings, but we also must have to have at least 5 times.
Team Stable Stable means that the team has established a set of ground rules for working together and has established a set of ground rules for working together. Stable means that the team has established a set of ground rules for working together and has established a set of ground rules for working together. 2.0	The team is composed of four members: Jorge Gonzalez Gomez, Miguel Angel Rodriguez Calzada, Pablo Martin Chicharro Garcia and Jaime Andrés Monzalve Barbadanes.	Conduct meetings	Start date: 21/06/2022 10 hours	A meeting was held to work together and tasks were assigned
		Taking control of the kanban board	Start date: 27/06/2022 1 hours	Tasks were distributed at the beginning of each meeting.
		Taking the alpha advance report updated	Start date: 27/06/2022 2 hours and 30 minutes	The progress of each activity was reviewed at each meeting.
		Collection of KANBAN Board	Start date: 19/06/2022 2 hours	21 Tasks were made
Stakeholders Identified Identified means that the team has identified the stakeholders and has established a set of ground rules for working together. Identified means that the team has identified the stakeholders and has established a set of ground rules for working together. Identified means that the team has identified the stakeholders and has established a set of ground rules for working together. 2.0	The stakeholders: Through an interview we identified the stakeholders and categories in the project.	Interview with the stakeholder	Start date: 08/04/2022 2 hours	The team asked the stakeholder several questions about the takeaway from the project in order to obtain suggestions and feedback. Interview with the stakeholder
		Filling stakeholder survey	Start date: 08/04/2022 30 minutes	Tasks were distributed at the beginning of each meeting. Filling stakeholder survey
		Collection of Extra Digital files	Start date: 08/04/2022 2 hours	We collected extra information from several sources and we overview with a data scientist
Requirements Bounded Bounded means that the team has established a set of ground rules for working together and has established a set of ground rules for working together. Bounded means that the team has established a set of ground rules for working together and has established a set of ground rules for working together. Bounded means that the team has established a set of ground rules for working together and has established a set of ground rules for working together. 2.0	Several work products were elaborated in order to define the scope of the project. The work products: could goals, problems, and the stakeholders of the project.	Corrections to the Software Control Delivery	Start date: 08/04/2022 2 hours	Controlled Diagram, domain model, organizational chart, elicitation cards and exemplars conceptual schema were corrected consistently to the corrections made to the domain model. Corrections to the Software Control Delivery Corrections to the Software Control Delivery
		Define purpose and sequence	Start date: 08/04/2022 2 hours	Tasks were distributed at the beginning of each meeting. Define purpose and sequence
		Elaboration of Process Diagram	Start date: 01/05/2022 10 hours	With all the information provided by the stakeholder and several articles and sources the team was capable of drafting the process diagram. Elaboration of Process Diagram
		Elaboration of Event Interaction Graph	Start date: 02/05/2022 8 hours	0 events were added
		Elaboration of Process Diagram Explanatory Text	Start date: 02/05/2022 2 hours	Totally mapped to the Process diagram
		Define constraints to the process	Start date: 02/05/2022 2 hours	14 constraints
		Elaboration of Data Dictionary	Start date: 02/05/2022 2 hours	Totally mapped to pre-conceptual schema
		Elaboration of Business rules	Start date: 02/05/2022 2 hours	Totally mapped to pre-conceptual schema
		Elaboration of Goal Diagram	Start date: 30/04/2022 2 hours	11 goals, and 7 requirements
		Elaboration of Cause-and-effect Diagram	Start date: 01/05/2022 1 hour and 30 minutes	11 main problems 3 sub problems and 5 causes.
		Elict goals	Start date: 30/04/2022 2 hours	12 goals
		Elict problems	Start date: 08/04/2022 2 hours	6 problems
		Elaboration of Pre-conceptual Schema	Start date: 01/05/2022 30 hours	12 drawing; relationships, 12 conditionals, 3 events
		Elaboration of Pre-conceptual Schema Traceability Table	Start date: 01/05/2022 20 hours	Document all the information contained in the precomputational scheme
		Elaboration of Problem-based Pre-conceptual Schema Explanatory Text	Start date: 02/05/2022 2 hours	3 problems
		Elaboration of Problem-based Pre-conceptual Schema Traceability Table	Start date: 01/05/2022 10 hours	Document all the information contained in the problems precomputational schema
		Elaboration of Percentage assignment to goals	Start date: 02/05/2022 2 hours	Percentages were assigned according to the instructions learned in class
		Elaboration of Percentage assignment to problems	Start date: 02/05/2022 4 hours	Percentages were assigned according to the instructions learned in class
		Verify Consistency	Start date: 04/05/2022 2 hours	All the members of the team are responsible of verifying consistency
Work Started The entire team was consistently evaluated in order to achieve work objectives and produce work products. The entire team was consistently evaluated in order to achieve work objectives and produce work products. The entire team was consistently evaluated in order to achieve work objectives and produce work products. 2.0	All team members work productively towards the same common goal	Elaboration of Method assessment Survey	Start date: 27/04/2022 1 hour	Some suggestions were found that can be implemented in the future work. Elaboration of Method assessment Survey
		Assign tasks	Start date: 21/06/2022 2 hours	After having the Precomputational schema done, the team leader assigned different tasks in order to get progress
		Report progress of the work	Start date: 30/04/2022 2 hours	Each member of the team reported their progress each day
Team Collaborating Collaborating means that the team has established a set of ground rules for working together and has established a set of ground rules for working together. Collaborating means that the team has established a set of ground rules for working together and has established a set of ground rules for working together. Collaborating means that the team has established a set of ground rules for working together and has established a set of ground rules for working together. 2.0	All team members work productively towards the same common goal	Continuous Elaboration of Kanban Board	Start date: 21/06/2022 3 hours	New states and activities were added
		Attend class in order to get feedback from the teacher	Start date: 29/06/2022 2 hours	We get feedback for the professor several times in class
		Assess the team	Start date: 28/06/2022 2 hours	The team leader evaluated the team constantly
		Elaboration of Team Charter	Start date: 29/06/2022 2 hours	Each member of the team had different responsibilities
Work of Working In Use Feedback was obtained from the problems to continue the work and achieve the objectives. Feedback was obtained from the problems to continue the work and achieve the objectives. Feedback was obtained from the problems to continue the work and achieve the objectives. 2.0	Feedback was obtained from the problems to continue the work and achieve the objectives.	Continuous elaboration of Kanban Board	Start date: 21/06/2022 3 hours	New activities and states were added. Some corrections were made to improve the Kanban board.
		Assess the way of working	Start date: 21/06/2022 30 minutes	The team leader evaluated the way of working constantly
		Gathering evidence of the meetings	Start date: 20/06/2022 10 minutes	Screenshots of the virtual meeting and some presential meetings are made.
		Attend class in order to get feedback from the professor	Start date: 29/06/2022 2 hours	We get feedback for the professor several times in class
Stakeholders In Agreement The user requirements were approved by the Nordcloud Software Studio. The user requirements were approved by the Nordcloud Software Studio. The user requirements were approved by the Nordcloud Software Studio. 2.0	The user requirements were approved by the Nordcloud Software Studio.	Elaboration of User Story Agreement	Start date: 21/06/2022 10 minutes	12 user stories were made
		Signing of agreement	Start date: 30/05/2022 1 minute	The user story agreement were signed by the professor
Opportunity Value Established Several work products were developed in order to know the value of the software. The work products: solution, questions, the solution value and the solution attract and is in a hurry. Several work products were developed in order to know the value of the software. The work products: solution, questions, the solution value and the solution attract and is in a hurry. Several work products were developed in order to know the value of the software. The work products: solution, questions, the solution value and the solution attract and is in a hurry. 2.0	Several work products were developed in order to know the value of the software. The work products: solution, questions, the solution value and the solution attract and is in a hurry.	Elaboration of Solution Effect	Start date: 20/05/2022 1 hour	With Kanere's template, the solution effect were calculated
		Verify consistency	Start date: 20/05/2022 2 hours	All the team evaluated the work product in order to verify consistency
		Elaboration of Solution value	Start date: 20/05/2022 1 hour	With only half causes, the solution value were calculated.
		Elaboration of critical success factors Explanatory Text	Start date: 20/05/2022 2 hours	7 CSF were found in the domain
		Elaboration of SOP domain model	Start date: 21/05/2022 30 minutes	3 different levels found with the iterations
		Elaboration of SOP operation table	Start date: 20/05/2022 2 hours	40 KPIs were evaluated with goals, with a CFS and with a Stakeholder. Elaboration of SOP operation table Elaboration of SOP operation table
		Elaboration of KPI design	Start date: 21/05/2022 4 hours	40 KPIs designed with its own table with calculation
Requirements Collected Several work products were developed in order to know the value of the software. The work products: solution, questions, the solution value and the solution attract and can cases. Several work products were developed in order to know the value of the software. The work products: solution, questions, the solution value and the solution attract and can cases. Several work products were developed in order to know the value of the software. The work products: solution, questions, the solution value and the solution attract and can cases. 2.0	Several work products were developed in order to know the value of the software. The work products: solution, questions, the solution value and the solution attract and can cases.	Elaboration of Use Cases	Start date: 25/05/2022 10 hours	10 Use cases and 25 respective explanatory tables were developed
		Verify consistency	Start date: 27/05/2022 2 hours	All the members of the team are responsible of verifying consistency
		Elaboration of User Interface Sketches	Start date: 28/05/2022 10 hours	All the interactions between interfaces from the Alpha prototype
		Elaboration of New Organizational Chart	Start date: 21/05/2022 10 minutes	There is a shared drive were all the teams organized their roles in the organizational chart.
		Elaboration of New Process Diagram	Start date: 21/05/2022 1 hour	With the information provided by the stakeholder and several articles and sources the team was capable of drafting the process diagram.
		Elaboration of Use Cases Explanatory Text	Start date: 25/05/2022 2 hours	10 Use cases explanatory tables developed
		Elaboration of New Process Diagram Explanatory Table	Start date: 21/05/2022 10 minutes	Totally mapped to the Process diagram and use cases
		Elaboration of New Data Dictionary	Start date: 21/05/2022 10 minutes	Totally mapped to pre-conceptual schema
Software System Alpha Prototype An Alpha prototype were developed in order to achieve work objectives and produce work products. An Alpha prototype were developed in order to achieve work objectives and produce work products. An Alpha prototype were developed in order to achieve work objectives and produce work products. 2.0	An Alpha prototype were developed in order to achieve work objectives and produce work products.	Elaboration of Alpha Prototype	Start date: 12/06/2022 30 hours	Pre-conceptual schema as rules, 12 dynamic relationships mapped on formulas; all concept classes done for instances created, all actions and conditionals working, and state processing in backend. KPIs
Work Under Control Under control means that the team has established a set of ground rules for working together and has established a set of ground rules for working together. Under control means that the team has established a set of ground rules for working together and has established a set of ground rules for working together. Under control means that the team has established a set of ground rules for working together and has established a set of ground rules for working together. 2.0	The entire team was constantly evaluated in order to achieve work objectives and produce work products.	Elaboration of Work Product Cards	Start date: 22/05/2022 2 hours and 30 minutes	3 different Work product cards were made
		Continuous Elaboration of Evidence of the Meetings	Start date: 20/06/2022 30 minutes	Screenshots of the virtual meeting and some presential meetings are made.
Work of Working In Place Tasks are always on the process to continue the work and achieve the objectives. Tasks are always on the process to continue the work and achieve the objectives. Tasks are always on the process to continue the work and achieve the objectives. 2.0	Feedback was obtained from the problems to continue the work and achieve the objectives.	Continuous Elaboration of Kanban Board	Start date: 19/05/2022 2 hours	16 Tasks were developed
		Continuous Elaboration of Alpha Advance Report	Start date: 19/05/2022 2 hours	New states and activities were added
Requirements Acceptable The tests prototypes were developed in order to achieve work objectives and produce work products. The tests prototypes were developed in order to achieve work objectives and produce work products. The tests prototypes were developed in order to achieve work objectives and produce work products. 2.0	The tests prototypes were developed in order to achieve work objectives and produce work products.	Verify Consistency	Start date: 8/6/2022 2 hours	All the members of the team are responsible of verifying consistency
		Elaboration of PO-based Interoperability	Start date: 14/06/2022 2 hours	Alpha prototype were enhanced with new features as data base and operations
		Elaboration of source code examples	Start date: 15/06/2022 2 hours	The consistency between model, view and controller are shown in the work product
		Elaboration of PO-based Interoperability Table	Start date: 14/06/2022 2 hours	All events, dynamic relationships and goals were specified
		Elaboration of Class diagram	Start date: 13/06/2022 2 hours and 30 minutes	14 classes
		Elaboration of communication diagrams	Start date: 14/06/2022 2 hours	13 communication diagrams
		Elaboration of state machine diagrams	Start date: 8/6/2022 5 hours	Theses one state machines for every dependent class
		Especify the functionality of the software system	Start date: 8/6/2022 10 hours	Everything is specificated with the different work products
Team Performing The entire team was constantly evaluated in order to achieve work objectives and produce work products. The entire team was constantly evaluated in order to achieve work objectives and produce work products. The entire team was constantly evaluated in order to achieve work objectives and produce work products. 2.0	The entire team was constantly evaluated in order to achieve work objectives and produce work products.	Elaboration of Lessons learned register	Start date: 8/6/2022 3 hours	10 element with the respective alpha, state, situation, lesson, impact and recommendation were added
		Continuous Elaboration of Kanban Board	Start date: 8/6/2022 3 hours	36 Tasks were developed
Work of Working Working Well The way of working is performing all the time the beginning of the sprints. There is no bug deal with this. The way of working is performing all the time the beginning of the sprints. There is no bug deal with this. The way of working is performing all the time the beginning of the sprints. There is no bug deal with this. 2.0	The way of working is performing all the time the beginning of the sprints. There is no bug deal with this.	Continuous Elaboration of Alpha Advance Report	Start date: 8/6/2022 3 hours	New states and activities were added
		Continuous Elaboration of Evidence of the Meetings	Start date: 19/06/2022 10 minutes	Screenshots of the virtual meeting and some presential meetings are made.