DUY TÂN UNIVERSITY
International School

CAPSTONE PROJECT 2

CMU-SE-451 / CMU-IS-451 / CMU-CS-451

PRODUCT BACKLOG AND USER STORY

Version 2.0

Date: 1 - Mar - 2021

EXPERT-DRIVEN SMART DASHBOARD APPLICATION

Submitted by

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Capstone Project 2 - Mentor:

Name	Signature	Date
Binh, Thanh Nguyen		26 - May - 2020

PROJECT INFORMATION			
Project Acronym	EDSDA		
Project Title	Expert-Driven Smart Dashboard Application		
Project Web URL	https://sda-research.ml/		
Start Date	01 - Mar - 2021		
End Date:	02 - Jun - 2021		
Lead Institution	International School, Duy Tan University		
Project Mentor	Ph.D Binh, Thanh Nguyen		
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DOCUMENT INFORMATION			
Document Title	Product Backlog & User Story		
Author(s)	Team C2SE.06		
Role	[EDSDA] Product Backlog & User Story v2.1		
Date	01 - Mar - 2021	Filename	[EDSDA] 003 Product Backlog & User Story
URL	https://github.com/sdateamdtu2020/SDA-v2.0		
Access	Project and CMU Program		

REVISION HISTORY

Version	Person(s)	Date	Description	Approval
Draft	Hoa, Vo	01 - Mar - 2021	Initiate document	Draft
2.0	All members	14 - Mar- 2021	Finish content of the document	2.0
2.1	All members	25 - May - 2021	Update content, fix typo	2.1

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Product	Expert-Driven Smart Dashboard Application
Active versions	v2.0

Scrum Master	Hoa Vo Van
Developer	Tin Pham Van
Developer	Dong Ky Huu
Developer	Kieu Tran Thi Thanh

Product Status	In Development
Sponsor	Nguyen Thanh Binh

Product Owner	Nguyen Thanh Binh
Project Champion	Hoa Vo

Projects

Id	Description	Start	End	Status	Remarks
Sprint 0	Initiate project requirement & design	15/Jan/21	28/Feb/21	Completed	
Sprint 1	Initiate infracstructure & data	01/Mar/21	14/Mar/21	Completed	
Sprint 2	Build Data Warehouse & RDF Storage	15/Mar/21	28/Mar/21	Completed	
Sprint 3	Implement data processing methods	29/Mar/21	11/Apr/21	Completed	
Sprint 4	Implement automatic methods	12/Apr/21	25/Apr/21	Completed	
Sprint 5	Handle importing data sources	26/Apr/21	09/May/21	Completed	
Sprint 6	Cloud server setting-up	10/May/21	23/May/21	Completed	
Final	Product delivery	31/May/21	08/Jun/21	Completed	

Sprint Plan

Sprint	Integration	Start	End	Status	Story Points (Committed)	Story Points (Delivered)
Sprint 0	1	24/Jan/21	31/Jan/21	Completed	3	3
	2	31/Jan/21	02/Feb/21	Completed	25	23
	3	06/Feb/21	21/Feb/21	Completed	20	18
	4	22/Feb/21	28/Feb/21	Completed	25	27
Sprint 1	5	01/Mar/21	07/Mar/21	Completed	20	23
	6	08/Mar/21	14/Mar/21	Completed	21	23
Sprint 2	7	15/Mar/21	21/Mar/21	Completed	20	22
	8	22/Mar/21	28/Mar/21	Completed	25	28
Sprint 3	9	29/Mar/21	04/Apr/21	Completed	27	27
	10	05/Apr/21	11/Apr/21	Completed	23	26
Sprint 4	11	12/Apr/21	18/Apr/21	Completed	22	23
	12	19/Apr/21	25/Apr/21	Completed	25	27
Sprint 5	13	26/Apr/21	02/May/21	Completed	22	25
	14	03/May/21	09/May/21	Completed	21	22
Sprint 6	15	10/May/21	16/May/21	Completed	22	25
	16	17/May/21	23/May/21	Completed	25	27
Final	Final Submission	31/May/21	02/Jun/21	Completed		
Final	Final Presentation	05/Jun/21	08/Jun/21	Completed		

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Backlog

Id	Epics	As a..	I want to ..	so that ..
PB01	Drag & Drop Data Cubes	As an Environment expert	drag a data cube from the cubes list and drop it onto the main content board	I can choose the property of data that I need and visualize them on suitable kinds of charts and maps.
PB02	Drag & Drop Data Cubes & Visualize	As an environment expert	drag some data cubes from the cubes list and drop them onto the main content board	I can choose the property of data and then connect these data cubes together for using data operation and visualize it on suitable kinds of charts and maps.
PB03	View data cube	As an environment expert	I want to view the data source of any data cubes	I can verify the accuracy of the data.
PB04	Import a datacube	As a user	I want to import my own data sources to the EDSDA database	I can interact with my data directly with EDSA help.
PB05	Data import view	As a user	I want to review my data sources before submitting them	I can check the accuracy of my data.
PB06	Define dimension, and measure properties	As a user	I want to define the dimension and measure of my data source's data cubes by myself	I can easily do OLAPing with my data source.
PB07	Export files	As a user	I want to export some report I have generated on the dashboard	I can use that exported file for my document and my analysis work

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Acceptance Criteria

Id	Acceptance Criteria	Priority	Status	Type	Sprint Id	Story Points (Est.)	Effort (Actual)
PB01	- Display name of dimension, data operation, and type of visualization in sidebar - Dimensions and Data cubes are available in sidebar ready to drag - When onDrop, display exactly widget in mainboard	5	Completed	Functional Criteria	3	50	13
PB02	- Display name of dimension,datacube, data operation, and type of visualization in sidebar - Dimensions and Data cubes are available in sidebar ready to drag - When onDrop, display exactly widget in mainboard -Datacube, dimension, and the data visualization type must be connected together	5	Completed	Functional	2	45	13
PB03	-Data cube in the sidebar must available . -Data cube must connect to dimension to view the data from that dimension	3	Completed	Functional	2	45	8
PB04	- Upload file (.CSV, .XLXS is only accepted) -The uploaded files must follow the system's business constrainst (format, content)	4	Completed	Functional	5	43	18

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Acceptance Criteria

Id	Acceptance Criteria	Priority	Status	Type	Sprint Id	Story Points (Est.)	Effort (Actual)
PB05	-Displaying exactly like excel format, uploaded file -The column of upload file can select by user	5	Completed	Non-Functional	4	47	14
PB06	-Dropdown with checkbox dimension values must containt dimension values from upload file -Dropdown with checkbox measure values must containt dimension values from upload file -User have to choose the value from checkbox to define the data cube (dimensions, and measures).	4	Completed	Functional	5	43	12
PB07	-Must have at least one successfully generated visualization dashboard	1	Completed	Functional	6	47	13

ID	Name	Description	Actor	Priority	Trigger	Pre - Condition	Post - Condition	Basic Flow	Alternative Flow	Exception Flow	Business Rules	Non-Functional Requirement
1	View Data cubes	As a user, I want to see the list of the data cubes so that I can know exactly what data I have, how many data cubes available, and how to work with them.	Users	Must-Have	User wants to know the list of Data cubes	No	No	1. Access to the EDSDA Web App through the internet. 2. At the right side of the web page shows widgets and the data cubes are available.	No	No	No	No
2	Drag Data cubes	As a user, I want to select one data cube so that I can drag that data cube into the active page and interact with other data cubes.	Users	Must Have	User wants to drag a specific data cube into the active page.	The dragged data cube must be available on the widgets. The dimensions of the dragged data cube must be valid.	The dragged data cube successfully displays on the active page.	1. Access to the EDSDA Web App through the internet. 2. At the right side of the web page shows widgets and the data cubes are available. 3. Select one data cube and drag it into the middle of the active page.	No	No	No	No
3	Visualize Data cube	As a user, I want to visualize data cube in many different types so that I can see the data displaying different ways like charts, maps, and data tables then I can clearly understand the data and use it.	Users	Must Have	Users want to visualize the data cube.	The visualizing data cube must available on the widgets. The dimensions of selected data cube must be valid.	The visualizing data cube displaying on the active page.	1. Access to the EDSDA Web App through the internet. 2. At the right side of the web page shows widgets and the data cubes, dimensions, and visualization types are available. 3. Select one at a time a data cube and drag it into the middle of the active page. 4. Select a dimension and drag it into active page you want to visualize. 5. Choose the visualize types and drag the visualize type into the active page. 6. Select the values of the data cube and dimension values. 7. Connect all available widgets together on the active page and then click the run button on visualizing widgets.	No	No	No	No
4	Select Data Cube	As a user, I want to select a new data cube to the active page so that I can display multiple data and connect them with the other data cubes.	Users	Must Have	User wants to select more data cubes.	The selected data cube must available on the widgets. The dimensions of selected data cube must be valid.	The selected data cube displaying on the active page.	1. Access to the EDSDA Web App through the internet. 2. The right side of the web page shows widgets and the data cubes are available. 3. Select the data cube and drag it into the middle of the active page.	No	No	No	No
5	List two data cubes	As a user, I want to link two data cubes together so that I can display multiple data and connect them with the other data cubes.	Users	Must Have	Users want to link two data cubes together	The visualizing data cube must available on the widgets. Two data cubes or more are on the active page and available to link. Linking two or more data cubes must have the same dimension attributes. The dimensions of selected data cube must be valid.	The data cubes successfully linked together through the dimensions. The visualizing data cube displaying on the active page.	1. Access to the EDSDA Web App through the internet. 2. The right side of the web page shows widgets and the data cubes, dimensions, and visualization types are available. 3. Select one at a time a data cube and drag it into the middle of the active page. 4. Select a dimension and drag it into the active page you want to visualize. 5. Choose the visualize types and drag the visualize type into the active page. 6. Select the values of the data cube and dimension values. 7. The second data cube, or the third data cube..., linking these data cubes together by connecting the widgets through dimensions widgets. 8. Connect all available widgets together on the active page and then click the run button on visualizing widgets.	No	No	No	No

ID	Name	Description	Actor	Priority	Trigger	Pre - Condition	Post - Condition	Basic Flow	Alternative Flow	Exception Flow	Business Rules	Non-Functional Requirement
6	List of Data Cubes	As a user, I want to create a new linked data cube so that I can manage the new data cube I have just created beside the previously created data cube to link them together.	Users	Must Have	Users want to create new linked data cubes.	The visualizing data cube must available on the widgets. Two data cubes or more are on the active page and available to link. Linking two or more data cubes must have the same dimension attributes. The dimensions of selected data cube must be valid.	The linked data cubes successfully linked together through the dimensions. The visualizing data cube displaying on the active page.	1. Access to the EDSDA Web App through the internet. 2. The right side of the web page shows widgets and the data cubes, dimensions, and visualization types are available. 3. Select one at a time a data cube and drag it into the middle of the active page. 4. Select a dimension and drag it into the active page you want to visualize. 5. Choose the visualize types and drag the visualize type into the active page. 6. Select the values of the data cube and dimension values. 7. The second data cube, or the third data cube..., linking these data cubes together by connecting the widgets through dimensions widgets. 8. Connect all available widgets together on the active page and then click the run button on visualizing widgets.	No	No	No	No
7	Visualize New Data cube	As a user, I want to visualize a new data cube in many different types so that I can view more data information about a new data cube.	Users	Must Have	Users wants to visualize a data cube.	-The visualizing data cube must available on the widgets. -The dimensions of selected data cube must be valid.	-The visualizing data cube displaying on the active page. -The new data display on the active page.	1. Access to the EDSDA Web App through the internet. 2. The right side of the web page shows widgets and the data cubes, dimensions, and visualization types are available. 3. Select one at a time a data cube and drag it into the middle of the active page. 4. Select a dimension and drag it into active page you want to visualize. 5. Choose the visualize types and drag the visualize type into the active page. 6. Select the values of the data cube and dimension values. 7. Connect all available widgets together on the active page and then click the run button on visualizing widgets.	No	No	No	No
8	Import Data Source	As a user, I want to import my own data source to EDSDA, so that I can interact with my data on EDSD	Users	Must Have	User want to import a data source	Data source must be in CSV or XLXS type	No	1. User accesses to EDSD homepage. 2. User clicks on Import button on top of the webpage. 3. User chooses data source file to be uploaded in the device. 4. User reviews the data source and chooses dimensions and measures for creating data cube. 5. User submit the data cube to system.	No	3b. Importing fail due to invalid data source. 4b. Returns to homepage	No	NFR1. When user chooses and imports a valid data source, the review screen must appear immediately. NFR2. When user submits the data cube structure, the page will reload within 2s.
9	Export report	As a user, I want to export my data charts as PDF, PNG, or JPG type	Users	Should have	User wants to capture their data chart	Data Cubes must be visualized or linked on the mainboard	No	1. Access to the EDSDA Web App through the internet. 2. At the right side of the web page shows widgets and the data cubes, dimensions, and visualization types are available. 3. Select one at a time a data cube and drag it into the middle of the active page. 4. Select a dimension and drag it into active page you want to visualize. 5. Choose the visualize types and drag the visualize type into the active page. 6. Select the values of the data cube and dimension values. 7. Connect all available widgets together on the active page and then click the run button on visualizing widgets. 8. Choose export Button on top of the board. 9. On the drop-down list, choose portable type of report (PNG, PDF, JPG). Then the report will automatically render and downloaded to user's device.	No	No	No	No

Activity / Process	Total budgeted Effort Usage (pd)	Total % budgeted Effort Usage (%)	Sprint 1		Sprint 2		Sprint 3		Sprint 4		Sprint 5		Sprint 6	
			No	%	No	%	No	%	No	%	No	%	No	%
Requirement	0	100	1	0	2	0	3	0	4	0	5	0	6	0
Design	600	80	1	30	2	30	3	40	4	0	5	0	6	0
Coding	1820	100	1	20	2	20	3	20	4	20	5	10	6	10
Unit Testing	150	80	1	20	2	20	3	20	4	20	5	10	6	10
Testing	600	100	1	20	2	20	3	20	4	20	5	10	6	10
Deployment	100	100	1	0	2	0	3	0	4	0	5	20	6	80
Support for Acceptance Test	0	100	1	0	2	0	3	0	4	0	5	0	6	0
Project Planning	50	100	1	80	2	10	3	10	4	0	5	0	6	0
Project monitoring	400	80	1	20	2	20	3	20	4	20	5	10	6	10
Quality Assurance	200	100	1	20	2	20	3	20	4	20	5	10	6	10
Training	80	100	1	40	2	30	3	30	4	0	5	0	6	0