FOLLOW-UP 6

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APO1

ANALYSIS OF REQUIREMENTS

NAME OR IDENTIFIER	R1 – Type of population		
SUMMARY	The system must calculate from a person's age the type of population in which they classify. Which can take the following values: child, if their age is between 0 to 14 years; adolescent, if you are between 15 and 17; adult if between 18 and 60; and older adult if their age is over 60.		
INPUTS	Input name	Data type	Selection or repetition condition
	year	int	That the user inserts an incorrect data type, for example a String.
GENERAL ACTIVITIES NECESSARY TO OBTAIN THE RESULTS	1. Obtain the age (years) 2. Using a conditional, calculate the type of population based on age		
RESULT OR POSTCONDITION	The system saves the variable type of population (typePoblation)		
OUTPUTS	Output name	Data type	Condition selection or repetition
	typePopulation	String	None. If all the data has been delivered correctly, this output will not have a selection or repetition condition.

NAME OR IDENTIFIER	R2 – Change from one planet to another		
SUMMARY	The system must allow the user to be able to change from one planet to another, taking into account that, when entering the planetarium, the user says on which planet he wants to start his journey.		
INPUTS	Input name	Data type	Selection or repetition condition
	planetToChange	String	

	personId	String	
	currentPlanet	String	
GENERAL ACTIVITIES NEEDED TO GET THE RESULTS	1. Read the inputs 2. Verify that the inputs exist inside the planetarium through the use of SolarSystem methods 3. If the inputs exist, they get the person's name, ID, and years. It removes the person from the planet and adds them to the other planet. 4. If the entries do not exist, the message will show on the screen that some of the data entered is not correct.		
RESULT OR POSTCONDITION	The system changes from planet to person and a confirmation message is displayed on the screen		
OUTPUTS	Output name	Data type	Selection or repetition condition
	msj	String	None. If all the data has been delivered correctly, this output will not have a selection or repetition condition.

NAME OR IDENTIFIER	R3 – List of all current visitors		
SUMMARY	The system must allow viewing a list of all current visitors with their information.		
INPUTS	Input name	Data type	Selection or repetition condition
GENERAL ACTIVITIES NEEDED TO GET THE RESULTS	1. Check that the array of all SolarSystem people in the position is not null 2. If not null, get the name, ID, type of population , name of the planet where it is currently located and the age of the Person type object in position i of the array of all people in the SolarSystem 3. All these variables are stored in msj, a String type variable that will be concatenated each time the condition of point 2		
RESULT OR POSTCONDITION	The list of all current visitors is shown on the screen with their information (msj variable)		

OUTPUTS	Output name	Data type	Selection or repetition condition
	msj	String	

NAME OR IDENTIFIER	R4 – Add visitor to the planetarium		
SUMMARY	The system must allow the user to add a visitor to the planetarium with their information		
TICKETS	Input name	Type of data	Selection or repetition condition
	name	String	
	years	int	
	id	String	
	namePlanet	String	Verify that the name of the planet is valid
GENERAL ACTIVITIES NEEDED TO OBTAIN THE RESULTS	1. Read the data of the Person object 2. Verify that the name of the inserted planet exists (planet where the person is located is an attribute of the Person object) 4. If the name of the planet exists, with the data read create a object of type Person 5. Save this object of type Person in the first available position of the Solar System array		
RESULT OR POSTCONDITION	A confirmation message is obtained		
OUTPUTS	Output name	Data type	Selection or repetition condition
	msj	String	

Traceability table

changePlanet

Method	Operation	Classes
executeOption Information	request	Main
changePlanet	Change ar a person from planet	SolarSystem Planet Person
searchPersonByIdSolarSystem	Search for person by their Id in the SolarSystem person array	Person SolarSystem
searchPlanetByName	- Find the position of the planet where the person is currently - Find the position of the planet where the person wants to go	Planet SolarSystem
getName	Get the name of the person	Person
getYears	Get the age of the person	Person
getId	Get the id of the person	Person
deletePerson	Delete the person from planet	Planet Person
addPersonToPlanet	Add person to planet	Planet Person SolarSystem
addPersonToSolarSystem	Add person to solar system array	Person SolarSystem

addPersonToSolarSystem

Method	Operation	Classes
executeOption Information	request	Main
addPersonToSolarSystem	Adds a person to the SolarSystem array	Person SolarSystem
Person	Creates an object of type Person (Constructor method)	Person

Class Diagram