

Associate Reactive Developer Sample Exam

Before Starting

This sample exam has 91 questions that will help you get ready for the Associate Reactive Developer exam.

We recommend that you prepare a real exam environment, as much as possible.

- Book a quiet room just for you.
- Print this document, apart from the last page.
- The last page of this document has the correct answers.
- Don't peek! Use it only after completing your exam, to check how well you did.

During the Sample Exam

To accurately simulate the real exam environment, we suggest that you:

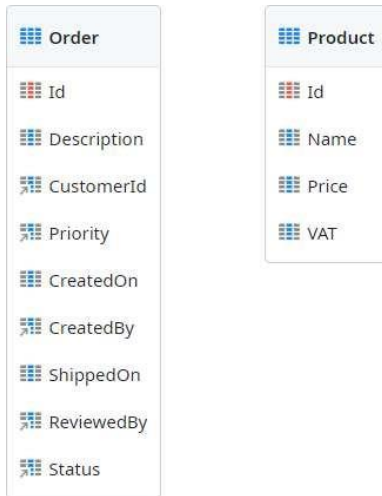
- Read each question and its answers carefully.
- Take your time! Questions may be revisited, and your choices can be changed.
- Mark the questions that you want to review at the end.
- Pick only one answer per question, as only one is correct.
- Answer all questions, as there's no benefit in not doing so.
- Try turning off all electronic devices during the exam.
- Refrain from using or reading any external materials during the exam.

After Completing the Sample Exam

After completing the exam, validate the answers you selected by checking the ones provided in the last page of this document, and count the total number of correct answers. The passing score is 70% or higher, so you should get at least 14 questions right. In case you chose any wrong answers, we suggest you review the study materials where that specific topic is covered.

Sample Exam Questions

1. What is required to create a many-to-many (N-N) relationship between the Entities in the picture?



A. Create a third Entity that contains two attributes of types Order Identifier and Product Identifier.

B. Create a third Entity with a primary key of type Order Identifier and an attribute of type Product Identifier.

C. Create an attribute of type Order Identifier in the Product Entity and an attribute of type Product Identifier in the Order Entity.

D. Create an attribute of type Product Identifier in the Order Entity.

2. Which of the following statements is **true**?

A. An Entity Identifier must have its Data Type set to Long Integer.

B. An Entity Identifier must be set to Auto Number.

C. An Entity Identifier can only be a single attribute.

D. An Entity Identifier is created automatically and cannot be modified.

3. The image below shows an Aggregate. What will the attributes of the *GetOrdersShippingState.List.Current* record be?

GetOrdersShippingState

3 Sources No Filters No Sorts No Test Values

Sources

- Order
- OrderStatus
- Priority

Joins

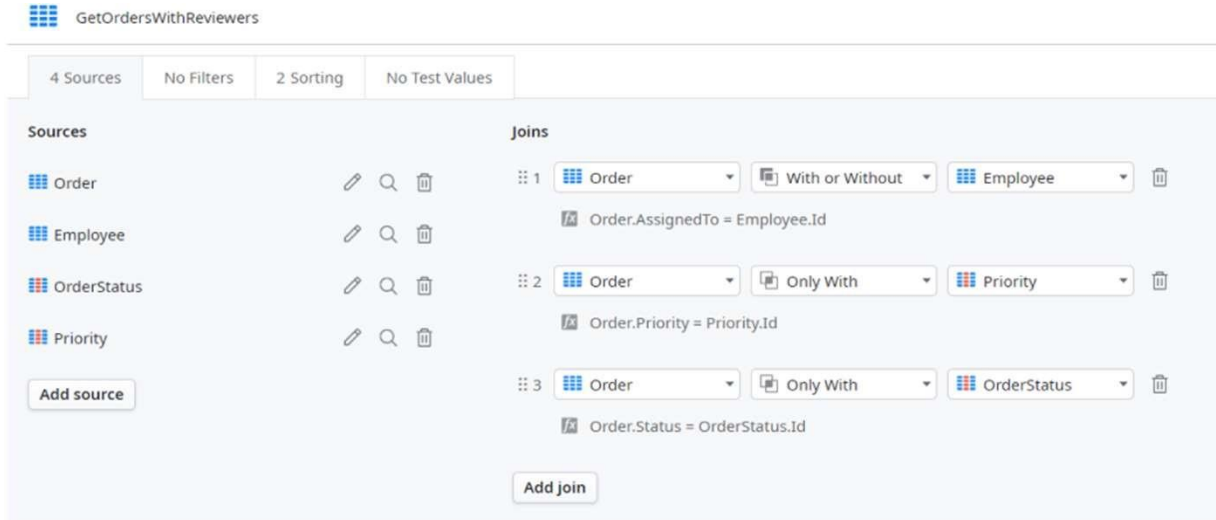
- 1 Order With or Without Priority Order.Priority = Priority.Id
- 2 Order With or Without OrderStatus Order.Status = OrderStatus.Id

Output

Group of ShippingState	Count of Id	Order Description	Order CreatedOn	Order ShippedOn	Priority	New Attribute
Cancelled	12	Order for month of October (2019)	2019-10-29 11:37:25	1900-01-01	High	
		Order for month of August (2019)	2019-08-28 11:37:25	1900-01-01	Medium	
		Order for month of November (2019)	2019-11-18 11:37:25	1900-01-01	Low	
		Order for month of September (2019)	2019-09-22 11:37:25	1900-01-01	High	
		Order for month of November (2019)	2019-11-14 11:37:25	1900-01-01	Low	
		Order for month of November (2019)	2019-11-03 11:37:25	1900-01-01	High	
		Remaining results hidden				
New	5	Order for month of September (2019)	2019-09-01 11:37:25	1900-01-01	Low	
		Order for month of October (2019)	2019-10-23 11:37:25	1900-01-01	Medium	
		Order for month of September (2019)	2019-09-18 11:37:25	1900-01-01	Medium	
		Order for month of September (2019)	2019-09-02 11:37:25	1900-01-01	Medium	
		Order for month of August (2019)	2019-08-29 11:37:25	1900-01-01	High	

- A. The two aggregation attributes: *ShippingState* and *Count*.
- B. The two aggregation attributes (*ShippingState* and *Count*) plus all the attributes of the Source Entities.
- C. Six attributes corresponding to the six visible columns in the Aggregate: *ShippingState*, *Count*, *Description*, *CreatedOn*, *ShippedOn* and *Priority*.
- D. The two aggregation attributes (*ShippingState* and *Count*) plus the columns used to calculate these aggregations.

4. In the Aggregate below the Orders are fetched with their reviewers (Employees). Which of the following options is **correct**?



The screenshot shows the OutSystems Aggregate Editor for an aggregate named "GetOrdersWithReviewers". At the top, there are tabs for "4 Sources", "No Filters", "2 Sorting", and "No Test Values". The "Sources" panel on the left lists four sources: "Order", "Employee", "OrderStatus", and "Priority", each with edit, search, and delete icons. Below the sources is an "Add source" button. The "Joins" panel on the right shows three joins:

- Join 1: "Order" (left) joined to "Employee" (right) with the relationship "With or Without" and the condition "Order.AssignedTo = Employee.Id".
- Join 2: "Order" (left) joined to "Priority" (right) with the relationship "Only With" and the condition "Order.Priority = Priority.Id".
- Join 3: "Order" (left) joined to "OrderStatus" (right) with the relationship "Only With" and the condition "Order.Status = OrderStatus.Id".

Below the joins is an "Add join" button.

- A. The Aggregate only returns Orders with Priority, Status and Employee.
- B. The Aggregate returns Orders without Employee and without Status.
- C. The Aggregate returns Orders with Status and at least one Employee.
- D. The Aggregate returns Orders with Priority and with zero or more Employees.

5. How would you change the following Aggregate to return the number of orders per priority?

GetOrders

3 Sources

No Filters

No Sorts

No Test Values

Sources

Order

OrderStatus

Priority

Add source

Joins

1

Order

With or Without

Priority

Order.Priority = Priority.Id

2

Order

With or Without

OrderStatus

Order.Status = OrderStatus.Id

Order	Priority	Priority	Order	Order	OrderStatus	New Attribute
Description	Id	Priority	ShippedOn	CreatedOn	Label	
Order for month of June (2021)	2	Low	2021-07-12	2021-06-04 00:00:00	Shipped	
Order for month of May (2021)	3	High	2021-07-12	2021-05-29 00:00:00	Cancelled	
Order for month of May (2021)	3	High	2021-07-11	2021-05-29 00:00:00	Pending	
Order for month of May (2021)	2	Low	2021-07-09	2021-05-07 00:00:00	Shipped	
Order for month of May (2021)	2	Low	2021-07-09	2021-05-19 00:00:00	New	
Order for month of April (2021)	2	Low	2021-07-08	2021-04-17 00:00:00	New	
Order for month of April (2021)	3	High	2021-07-08	2021-04-25 00:00:00	New	
Order for month of April (2021)	3	High	2021-07-08	2021-04-10 00:00:00	New	
Order for month of April (2021)	2	Low	2021-07-07	2021-04-09 00:00:00	New	
Order for month of June (2021)	2	Low	2021-07-07	2021-06-17 00:00:00	New	
Order for month of April (2021)	2	Low	2021-07-07	2021-04-01 00:00:00	New	
Order for month of May (2021)	2	Low	2021-07-06	2021-05-10 00:00:00	New	
Order for month of March (2021)	1	Medium	2021-07-05	2021-03-31 00:00:00	Cancelled	

A. Change the Join between the Order and the Priority to *Only With* and create a Count over the *Priority.Id* attribute.

B. Create a Group By over the *Priority.Id* attribute and a Count over the *Order.Id* attribute.

C. Create a Group By over the *Order.Id* attribute and a Count over the *Priority.Id* attribute.

D. Remove the Join between the Order and the OrderStatus and create a Count over the *Priority.Id* attribute.

6. Which of the following sentences about the *On Initialize* lifecycle event is **true**?

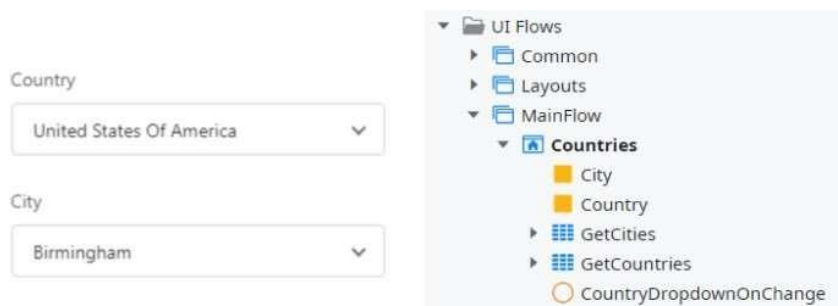
A. The *On Initialize* event is triggered before the Screen or Block is rendered and before fetching any data.

B. The *On Initialize* event is triggered after the Screen or Block has been rendered, so you can use it to manipulate its structure.

C. The *On Initialize* event is triggered after an Aggregate finishes fetching data and can be used to act upon the retrieved data before it's used in the Screen.

D. The *On Initialize* event is triggered after the input parameter of a Block changes.

7. The Screen below has two Dropdowns: one to select a Country and the other to select a City. The *GetCountries* and *GetCities* Aggregates fetch the data displayed in the dropdowns and both have the Fetch property set to At Start. Which of the following options is **not** a valid step to only fetch the cities of the country selected in the dropdown?



A. Set the Fetch property of the *GetCities* Aggregate to Only On Demand.

B. Refresh the *GetCities* Aggregate in the OnChange Action of the Country Dropdown.

C. Filter the *GetCities* Aggregate by the selected country.

D. Call the *GetCities* Aggregate in the *GetCountries*' On After Fetch Event handler.

8. Regarding Blocks in OutSystems reactive apps, which of the following options is **Correct**?

- A. Blocks can only be instantiated on Screens.
- B. Blocks can be instantiated on Screens and other Blocks.
- C. Blocks can be instantiated on Client Actions on the Screen.
- D. Blocks can be instantiated on Screens and external HTML pages, using a special HTML tag.

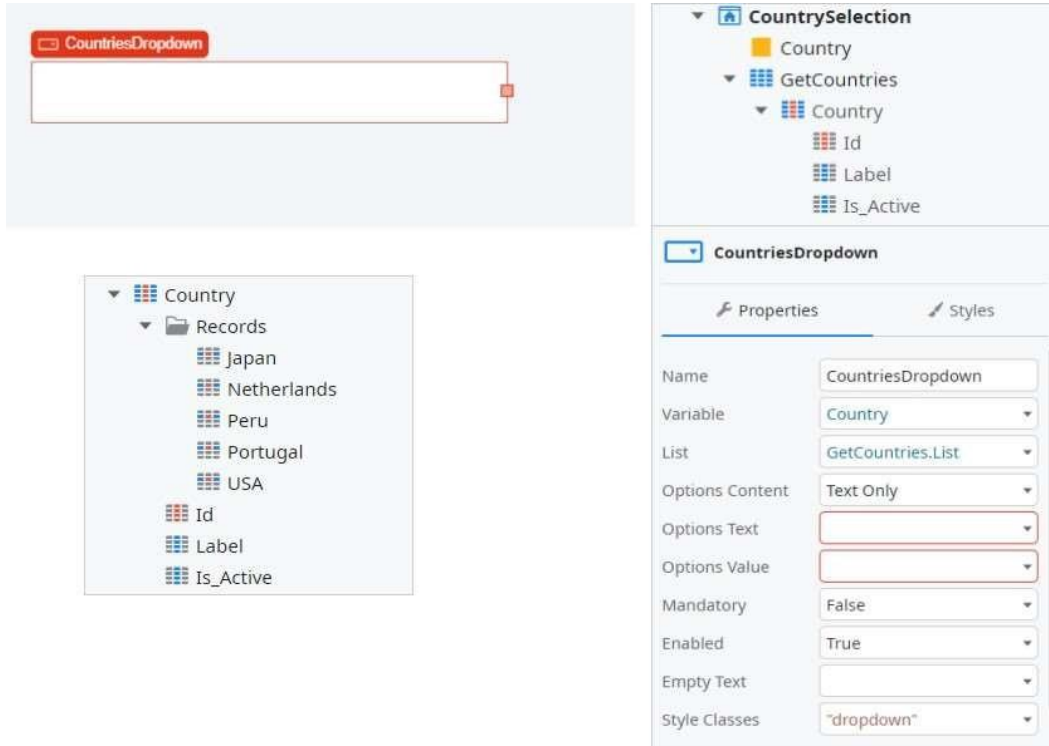
9. Which of the following options is a **valid** usage of the Trigger Event node?

- A. The Trigger Event allows a Block to notify its parent (Screen or Block) that something relevant occurred in the scope of the Block.
- B. The Trigger Event allows a Screen to notify its children (Blocks) that something relevant occurred in the scope of the Screen.
- C. The Trigger Event allows a Block to notify its children (other Blocks) that something relevant occurred in the scope of the Block.
- D. The Trigger Event allows a Screen to notify its parent (Screen or Block) that something relevant occurred in the scope of the Screen.

10. A Form has a Save button with the Built-in Validations property set to **Yes**. Which validations are automatically performed when a user clicks the button?

- A. Check if the mandatory fields are filled in.
- B. Check if the mandatory fields are filled in and if the non-mandatory fields that are later used in the logic, are also filled in.
- C. Check if the mandatory fields are filled in and if the data submitted by the user matches the data type expected in the input fields.
- D. Check if the mandatory fields are filled in and if the data submitted by the user matches the data type of the Form's data source.

11. The *CountriesDropdown* will allow users to select a country. What should be set in the **Options Text** property to make sure that the names of the countries appear in the dropdown?



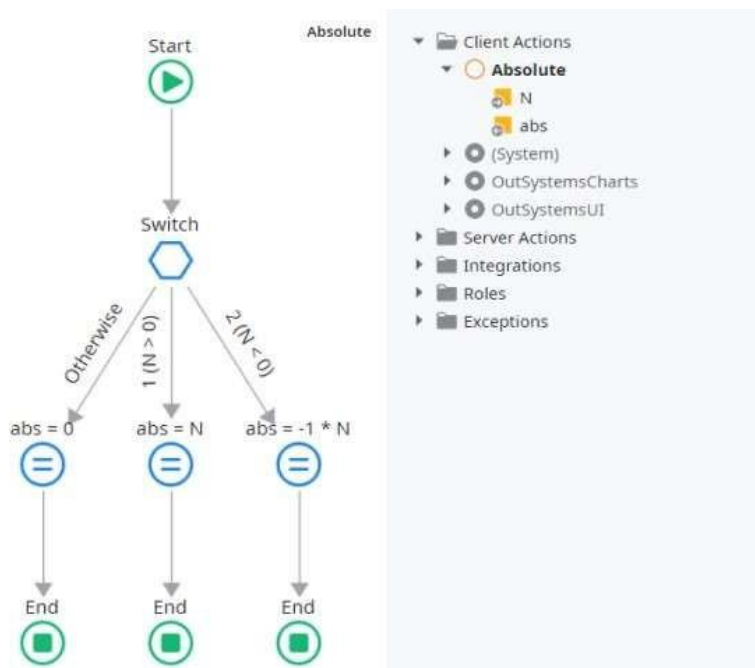
The screenshot displays the OutSystems Studio interface for configuring a **CountriesDropdown** widget. On the left, a data browser shows a **Country** entity with a **Records** folder containing **Japan**, **Netherlands**, **Peru**, **Portugal**, and **USA**. The entity properties include **Id**, **Label**, and **Is_Active**. On the right, the **Properties** panel for the **CountriesDropdown** widget is shown. The **Options Text** property is highlighted with a red border, indicating it is the focus of the question. The **Options Value** property is also highlighted with a red border. The **Options Content** is set to **Text Only**. The **Options Text** and **Options Value** properties are currently empty, suggesting they need to be configured to display the country names and their corresponding IDs.

- A. *Country.Id*
- B. *GetCountries.Country.Label*
- C. *Country*
- D. *Country.Label*

12. Considering a Button in a Screen, which of the following options **cannot** be set as its *On Click* property?

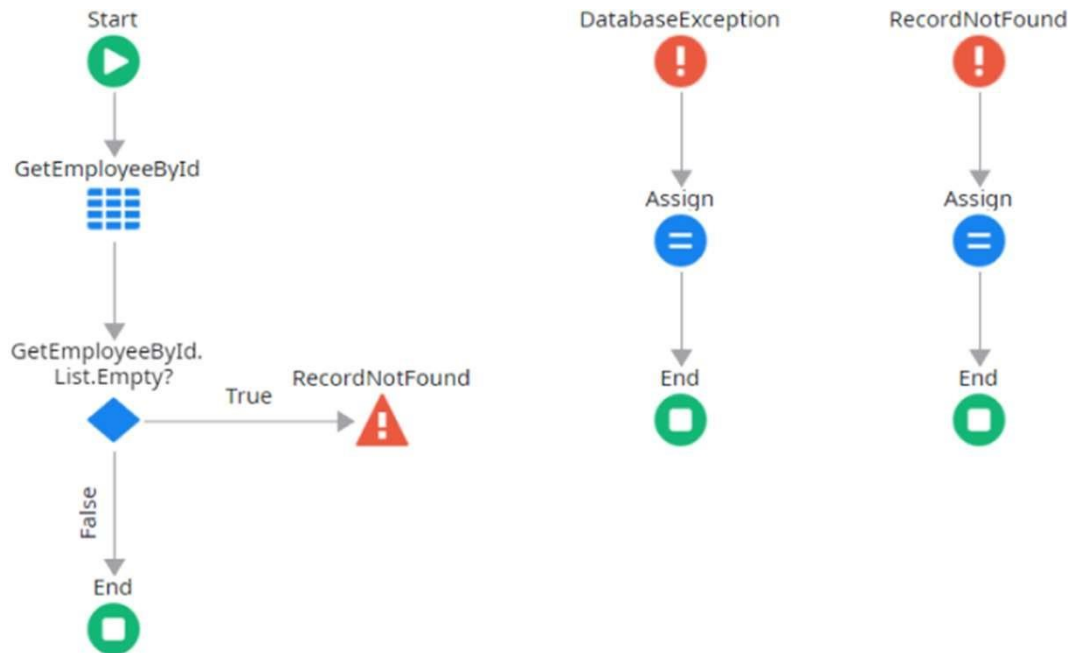
- A. Screen.
- B. Client Action.
- C. Block.
- D. External Site.

13. The *Absolute* Action returns an absolute value (abs) of a number N passed as Input Parameter. When does the Action return 0 ?



- A. Never.
- B. When the input parameter (N) is less than zero.
- C. When the input parameter (N) is zero.
- D. When the input parameter (N) is greater than zero.

14. Consider the following Action. What happens if the *GetEmployeeById* Aggregate not return any record?



- A. The *DatabaseException* flow is executed.
- B. The *RecordNotFound* flow is executed.
- C. No exception flow is executed.
- D. The module's global exception handler is executed.

15. Considering the Function property in Client Actions, which of the following options is **correct**?

- A. Setting the Function property to *Yes* restricts the Action to have only one Output Parameter.
- B. Setting the Function property to *No* ensures the Action can only be used in the module where it is defined.
- C. Setting the Function property to *Yes* is not possible, if the Action is exposed to other modules as Public.
- D. Setting the Function property to *No* ensures the Action can only be used in Screen Expressions.

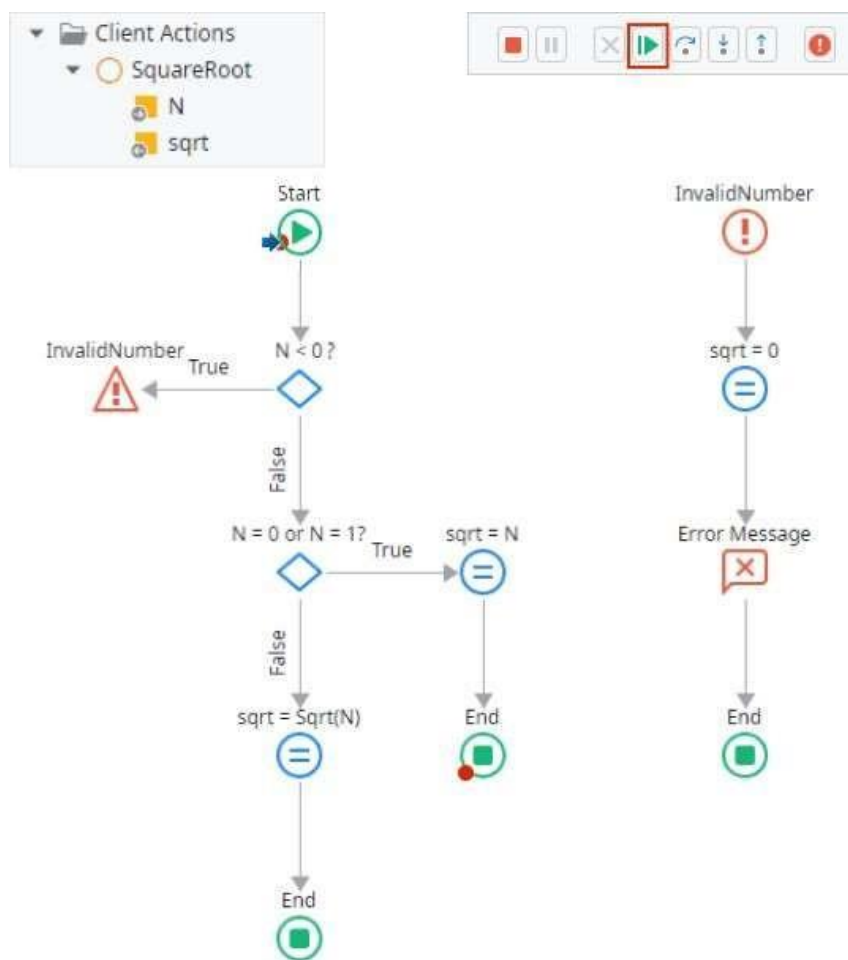
16. Michael is a user of the Orders application and only has the OrdersAdmin Role assigned to him. Which of the following options is **correct**?

- A. Michael has access to Screens with the *Registered* Role checked.
- B. Michael does not have access to Screens with the *Anonymous* Role checked.
- C. Michael has access to Screens that have the *OrdersAdmin* Role checked, but not to Screens with the *Registered* Role checked.
- D. Michael only has access to Screens that have the *OrdersAdmin* Role checked.

17. Which of the following options should **not** be a use case of Client Variables?

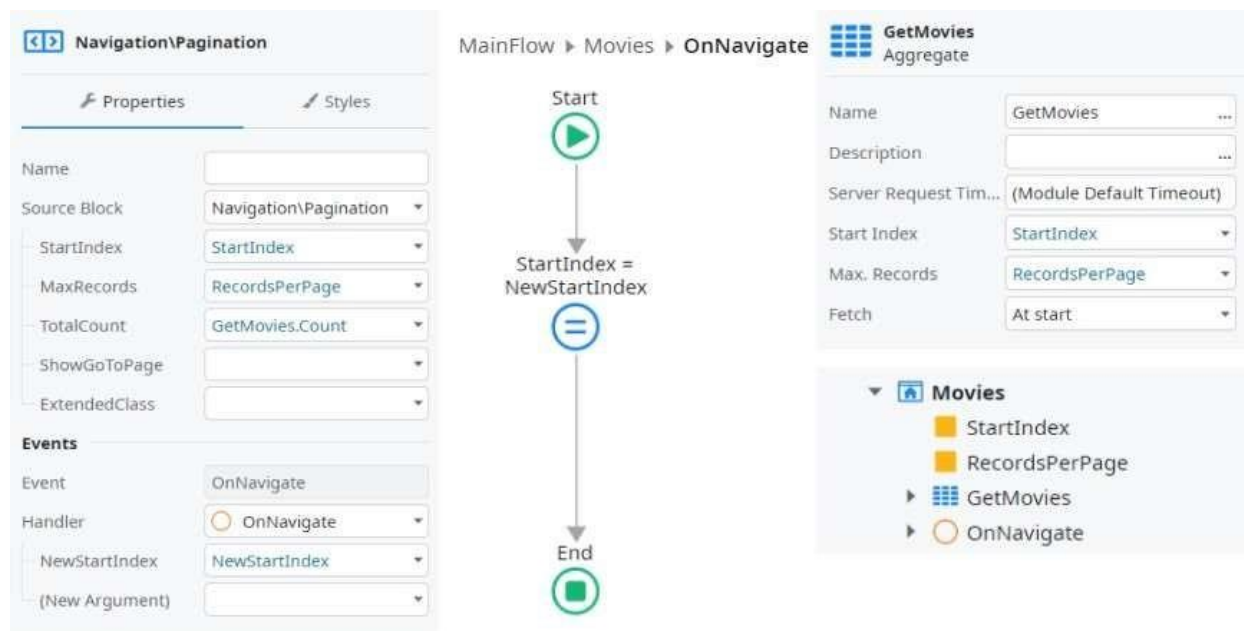
- A. Username.
- B. Password.
- C. Search filter keyword.
- D. ID of a user session.

18. The Action in the image calculates the square root (sqrt) of a positive decimal number (N). Knowing that the function was called with $N = 0$, and that the debugger is stopped at the Start node, what will happen when the developer selects the Continue (F9) option highlighted in the picture?



- A. The Action will end, with sqrt = 0.
- B. The Action will throw an exception and sqrt will have no value.
- C. The debugger will stop in the $N < 0$ If node.
- D. The debugger will stop at the breakpoint in the End node.

19. The image shows a Pagination widget that is associated with a Table on a Screen that was already implemented. There are no error messages in Service Studio, but when the user selects a new page (in the Pagination widget) the results do not change on the Table. What is the reason for that behavior?

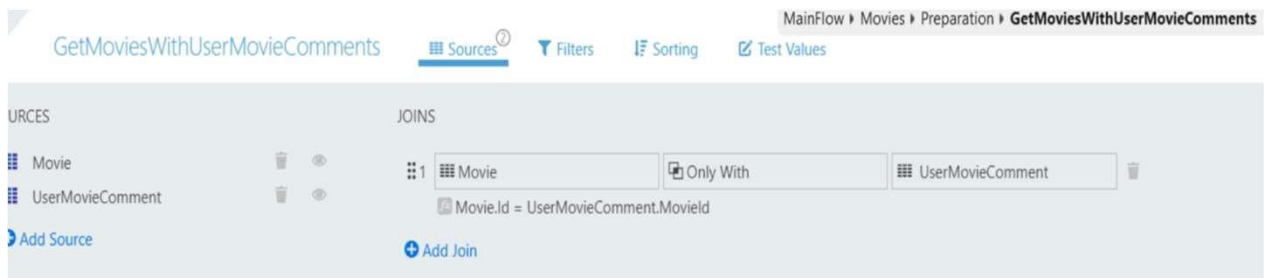


- A. The *GetMovies* Aggregate is not being refreshed in the *OnNavigate* Action.
- B. The Max. Records of the Aggregate should be equal to the total number of movies in the database.
- C. The Table is not being refreshed on the *OnNavigate* Action.
- D. The MaxRecords property of the Pagination should be set to *GetMovies.Count* and the TotalCount to *RecordsPerPage*.

20. A Screen contains a Form to collect Customer data. The Form has a Save Button with the On Click property set to a SaveOnClick Action, which sends the data to the server to store it in the database. The developer must ensure that the Action will **not** send the data to the server when the mandatory Customer data fields have not been filled in. What is the **best way** to do that?

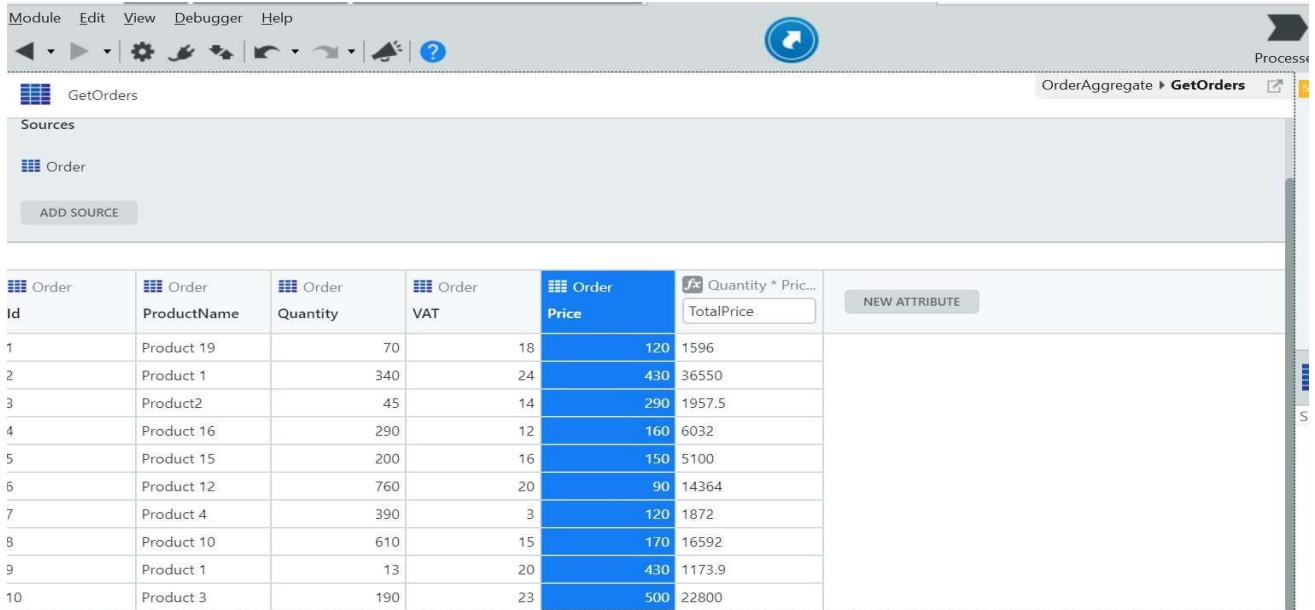
- A. Set the Built-in validations of the Save button to *Yes*.
- B. Perform custom validations for all inputs. If one fails, set the Valid property of the Form to *False*.
- C. Set the Built-in validations of the Save button to *Yes* and check if the Form's Valid property is *True*.
- D. Set the Built-in validations of the Save button to *Yes* and add an Exception Handler flow to handle invalid inputs.

21. What needs to be changed in the following Aggregate to obtain the number of comments per Movie for movies with one or more comments?



- A. Change the join between Movie and UserMovieComment Entities to With or Without and create a Count over the UserMovieComment Id attribute.
- B. Change the join between Movie and UserMovieComment Entities to With or Without and create a Group By over the UserMovieComment Id attribute.
- C. Create a Group By over the Movie Id attribute and Count over the UserMovieComment Id attribute.
- D. Create a Count over the UserMovieComment Id attribute

22. There is an aggregate which contains order id, vat, quantity, price. We need to create TotalPrice Column as below.



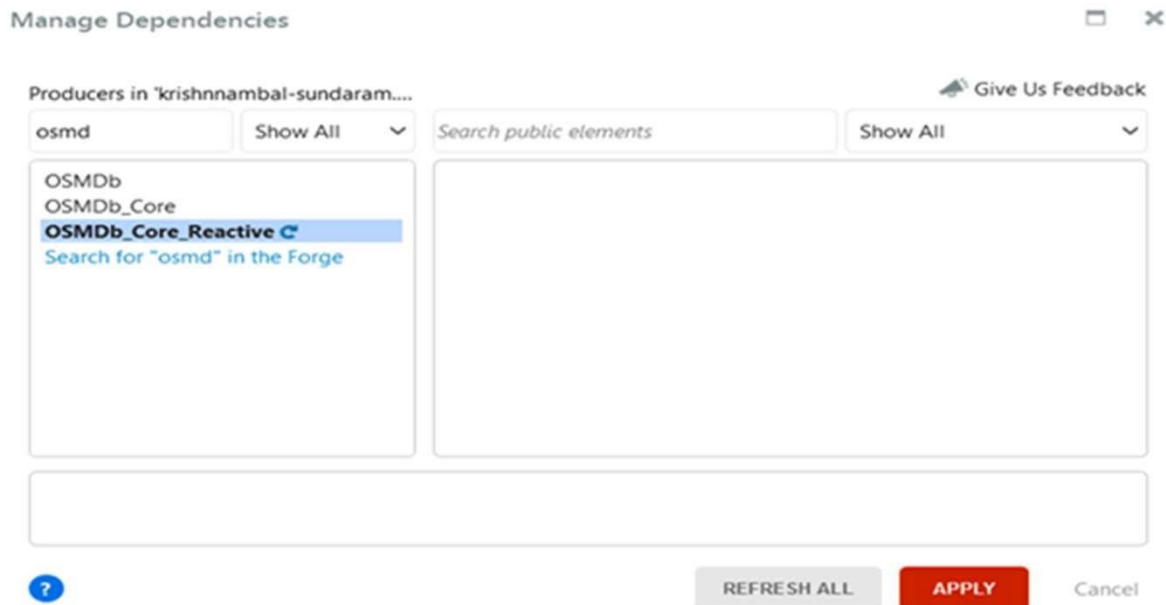
Order Id	Order ProductName	Order Quantity	Order VAT	Order Price	Quantity * Price * (1 + VAT/100)
1	Product 19	70	18	120	1596
2	Product 1	340	24	430	36550
3	Product2	45	14	290	1957.5
4	Product 16	290	12	160	6032
5	Product 15	200	16	150	5100
6	Product 12	760	20	90	14364
7	Product 4	390	3	120	1872
8	Product 10	610	15	170	16592
9	Product 1	13	20	430	1173.9
10	Product 3	190	23	500	22800

- A. Can be achieved using calculated attribute $\text{total price} = \text{quantity} * \text{price} * (1 + \text{vat}/100)$
- B. Cannot be achieved using calculated attribute
- C. Advance SQL is needed to achieve this
- D. Only business logic can achieve this

23. Complete the below sentence, "One of the inputs valid property is false..."

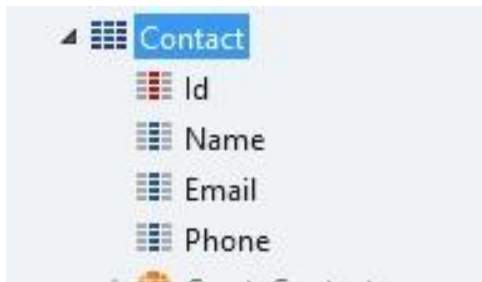
- A. form.valid property automatically becomes false.
- B. explicitly need to set the form.valid property to false.
- C. form.valid property is still true.

24. There are two modules OSMDb_Reactive and OSMDb_Core_Reactive. OSMDb_Reactive is referencing one of the entities in 'OSMDb_Core_Reactive'. What does the below image indicate?



- A. OSMDb Core Reactive module has been deleted.
- B. Nothing has changed.
- C. One or more referenced elements have been changed in the OSMDb_Core_Reactive module
- D. OSMDb_Reactive module has been changed.

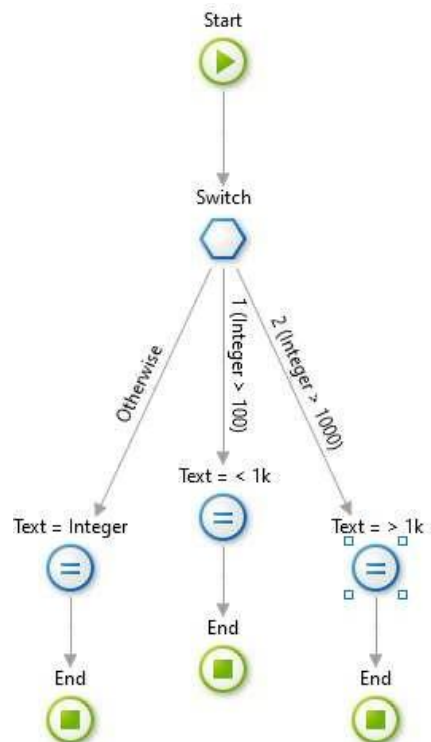
25. While using bootstrap to add data to the entity, which of the following is correct with respect to the given scenario



	A	B	C	D
1	Name	Email	Phone Number	Company
2	John Alister	john@example.com	1-541-754-3010	example
3				
4				

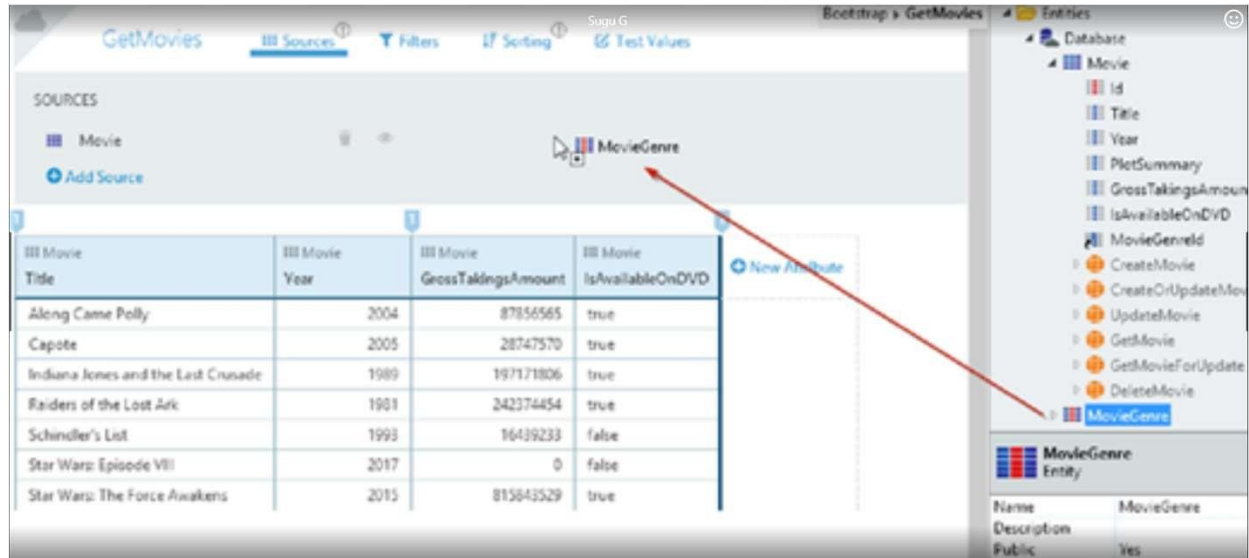
- A. Since not all attributes are matched, bootstrap would not occur.
- B. Name and Email will be part of the bootstrap while phone number and company would be ignored.
- C. Name, Email, Phone number will be part of the bootstrap, only company would be ignored.

26. This action has an integer as input and Text as output. The conditions of the switch and the assign statements are self-explanatory in the diagram. Which one is true among the following?



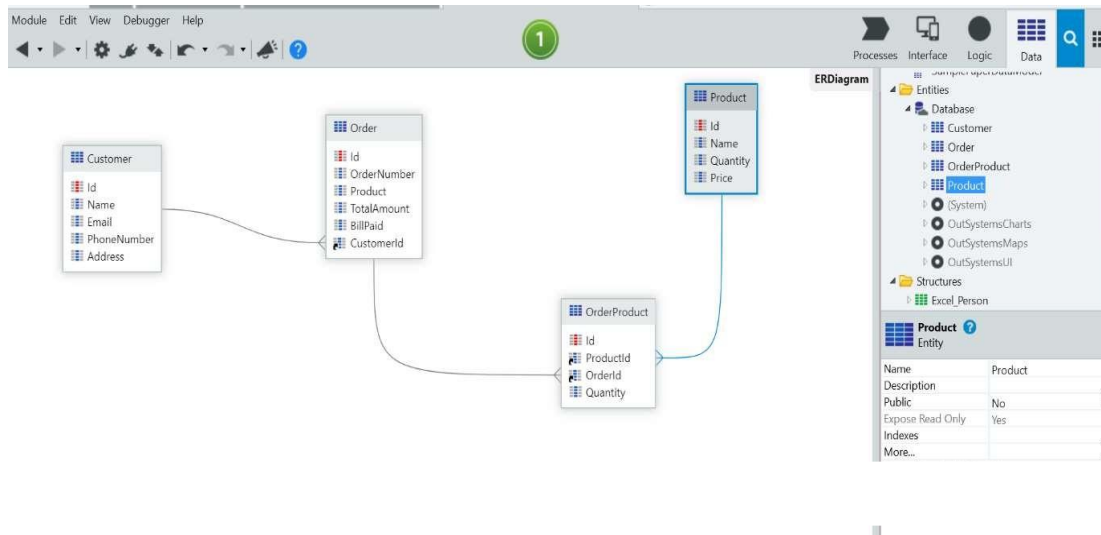
- A. If Integer is greater than 2000, the text will always be "> 1k"
- B. If Integer is greater than 1000, the text will be "< 1k"
- C. If integer is exactly 1000, the text will be "Integer"
- D. If integer is greater than 1000, the text will be "> 1k"

27. When the drag and drop action in the image below is complete, the MovieGenre Static Entity is added to the Aggregate. Which of the following statements is correct?



- A. The Join must be created manually, if the MovieGenreId attribute in the Movie Entity is non-mandatory.
- B. A With or Without join is created, if the MovieGenreId attribute in the Movie Entity is mandatory.
- C. A With join is created, if the MovieGenreId attribute in the Movie Entity is non-mandatory.
- D. An Only With join is created, if the MovieGenreId attribute in the Movie Entity is mandatory.

28. In the above Database we need to add a new entity for storing Product Type. Product type can be one of the following types (service, electronic, cosmetic, food). Project manager also told that in last one year product type is not changed. Which one is the correct way to implement this scenario?



- A. Create static entity product type and add an attribute in product table of product Type Identifier
- B. Create a static entity product type and add an attribute as Product Identifier in this entity
- C. Create an entity which contain product type and Product Id

29. What is wrong in this image?

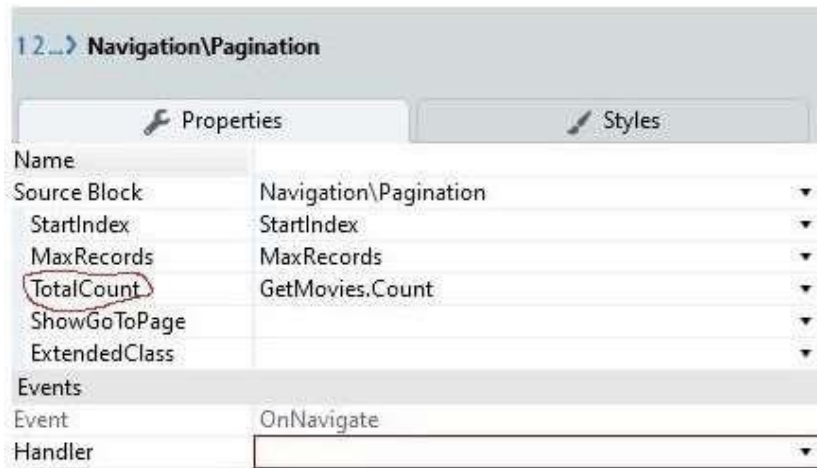


- A. Nesting of block is not allowed
- B. Block can be included only on screen
- C. Block can not be nested in itself

30. What's Expose Read Only entity's property for?

- A. If set to yes makes entity exposed to writes permission.
- B. If set to no makes entity exposed to write permission.
- C. If set to no makes entity exposed to read permission.

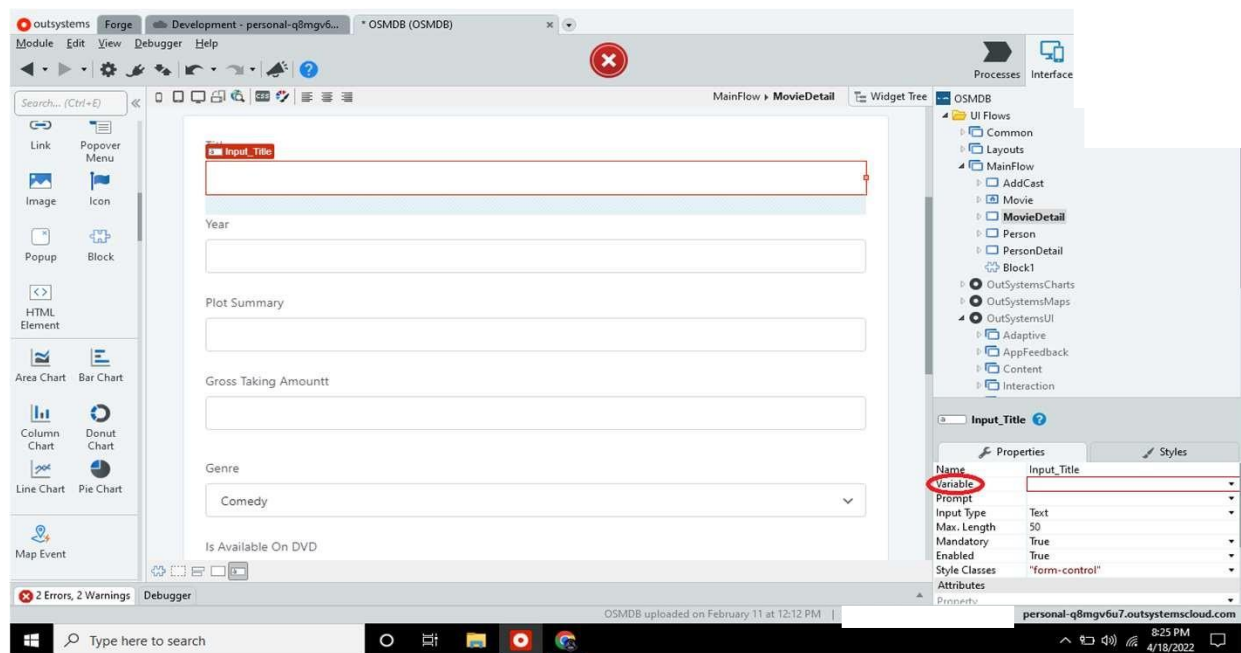
33. By Using pagination widget in an aggregate what Total Count Means



- A. Total no of items displays in a screen
- B. Total no of pages in the pagination
- C. Count property of an aggregate
- D. Maximum record of an aggregate

34. Suppose you have fetched data from an aggregate which is not Null . What will display on choosing GetEmployee.list.current.employee.FirstName

- A. Null
- B. FirstName
- C. Count
- D. Full Aggregate



- A. Every Input filled will have separate Local Variable
- B. Data will be stored in a form variable
- C. Data will be stored in aggregate respective attribute

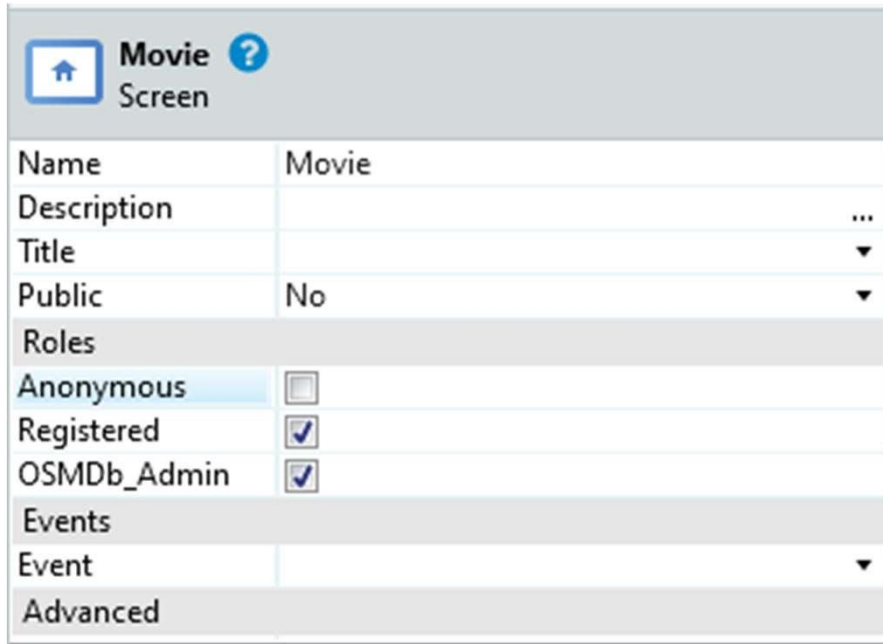
36. What will be first step is mandatory to display data of an aggregate using list

- A. Using list & list item
- B. Using list & expressions
- C. Setting source of list to the aggregate

37. The client action public property is set to Yes then,

- A. The client action can be used in that application
- B. The client action can be used in that same module only.
- C. The client action can be used in the server action.

38. Which of the following is true with respect to the below screen setting?

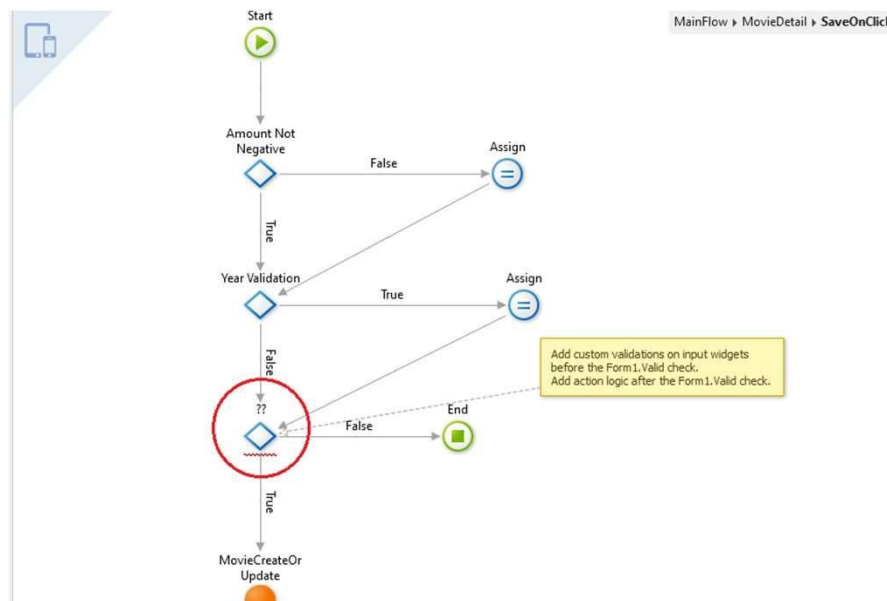


Movie Screen	
Name	Movie
Description	...
Title	▼
Public	No ▼
Roles	
Anonymous	<input type="checkbox"/>
Registered	<input checked="" type="checkbox"/>
OSMDb_Admin	<input checked="" type="checkbox"/>
Events	
Event	▼
Advanced	

- A. No authentication is required.
- B. Registered User can access the screen
- C. A user with 'OSMDb_Admin' role can access the screen.
- D. None of the above.

39. How to display input filled widget as mandatory with * Sign ?
- A. Need to add a label with input field property pointing toward label.
 - B. Need to add a label with its property pointing toward input field.
 - C. By Setting on Click Property of an input filled widget
 - D. By Using Screen Action.
40. When will the client variable data will destroy ??
- A. By Closing Tab.
 - B. Logout
 - C. By Destroying Cookies
 - D. By Using Service Center

41. You have some custom validation so what we need to add in place of ??



- A. Form.Valid=TRUE
- B. Form.Valid=FALSE
- C. Form.Valid
- D. None of the above.

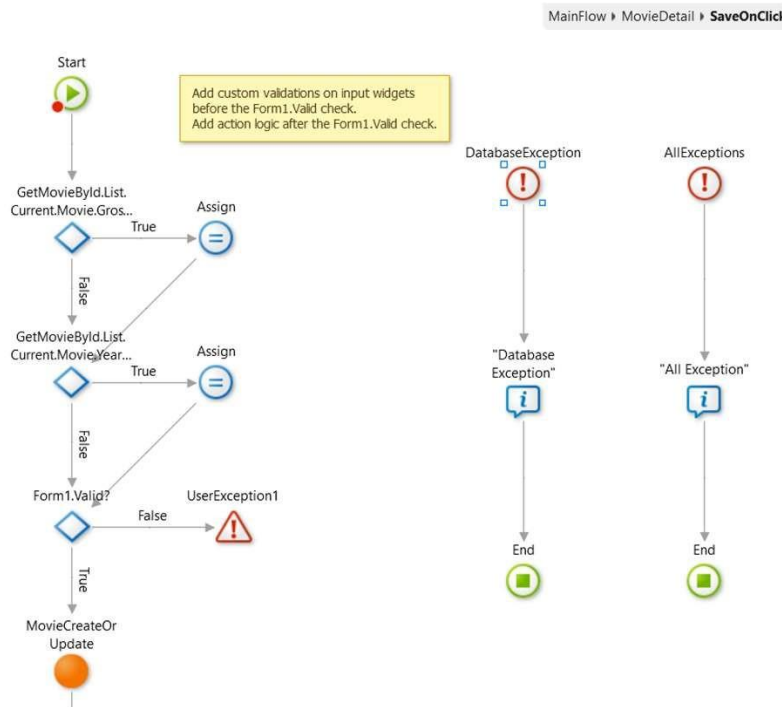
42. Suppose we have two screens namely screen A and B and if we are moving from screen A to B then when will be the on Destroy Event Will Call ??

- A. When Screen B OnReady then OnDestroy event call for Screen A
- B. First OnDestroy event will call for Screen A then Screen B will initialize
- C. When Screen B initialize then OnDestroy event call for Screen A
- D. When Screen B Rendered then OnDestroy event call for Screen A

43. What is true about site property?

- A. Cannot be modified outside of Service Studio
- B. Only changed at Runtime.
- C. Cannot be a record data

44. Which exception handler would execute when you get an error on inserting any new record in 'MovieCreateOrUpdate' server action?



- A. AllExceptions handler will be executed.
- B. DatabaseException handler will be executed.
- C. Exception will be raised in Global level.
- D. Data Will submit without any exception.

46. What we cannot use inside data actions ?

- A. Advance SQL
- B. Server Actions
- C. Client Actions
- D. Aggregates

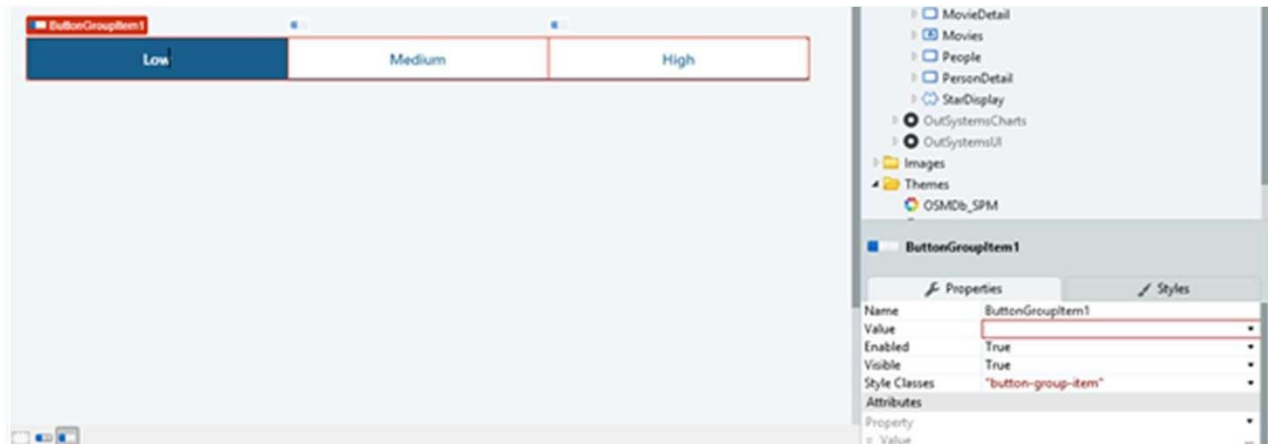
47. Where we can see error logs in outsystems ??

- A. By Using Service Center's Monitor Tab
- B. By Using Debugger
- C. Can Not See Error Logs
- D. By Using Google Console

48. What is False regarding static entity ??

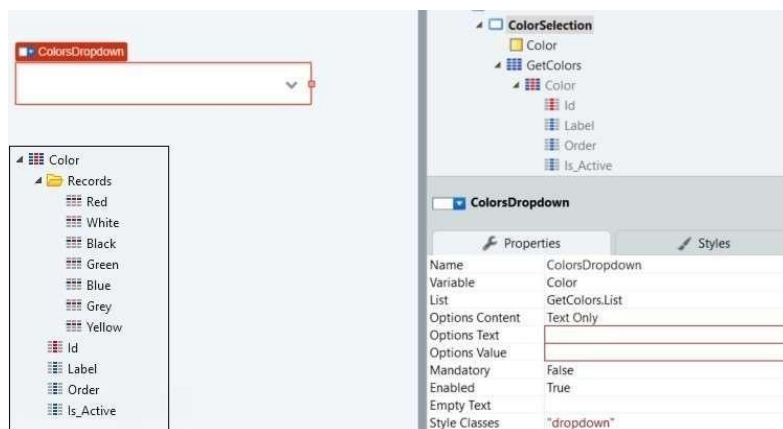
- A. Defined during design and development.
- B. Can Change at run time
- C. Only have one entity action
- D. Cann Modify the default created attributes.

49. There is a button group whose variable is set to local variable of data type Priority Identifier. What should be filled in the value property corresponding to the highlighted button in the below picture? If the priority static entity has (Low, medium, high) records.



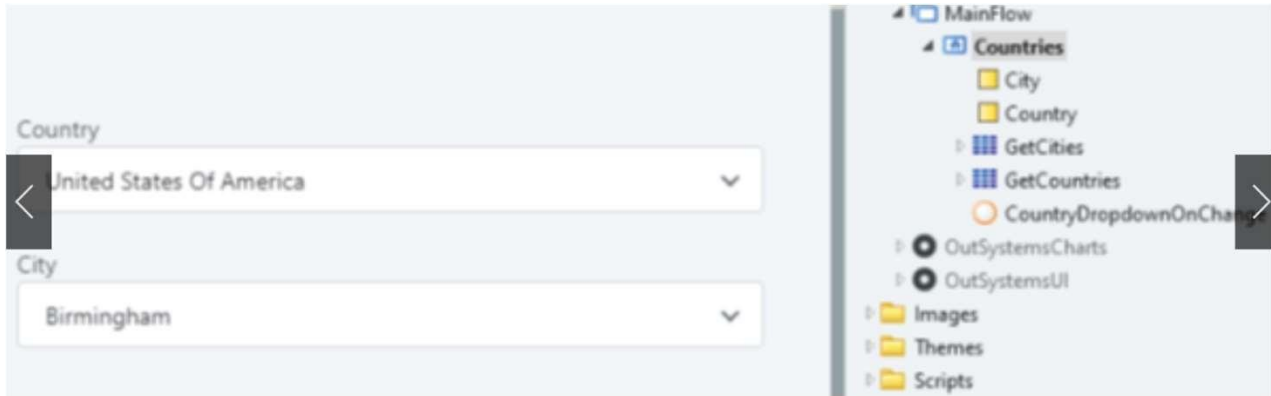
- A. Entity.Priority.Id
- B. Entity.Priority.Low
- C. Entity.Priority.Label
- D. Priority.Label

50. In the following scenario, we are implementing the ColorsDropdown widget which will allow a user to select a color. What should be set in the Options Text property to make sure that the names of the colors appear in the dropdown?



- A. Color.Id
- B. GetColors.Color.Label
- C. Color
- D. Color.Label

51. The following screen has two Dropdowns, one to select a Country and one to select a City. The GetCountries and GetCities Aggregates provide the countries and the cities to be displayed in the respective dropdowns. Which of the following options is a valid step if we want to just fetch the cities only after the user selects a country?



- A. Set the Fetch property of the GetCities Aggregate to Only on Demand.
- B. Refresh the GetCountries Aggregate in the OnChange Action of the City Dropdown.
- C. Filter the GetCountries Aggregate by the selected city.
- D. Call the GetCities Aggregate in the GetCountries On After Fetch Event handler.

52. Bootstrapping a file with following data

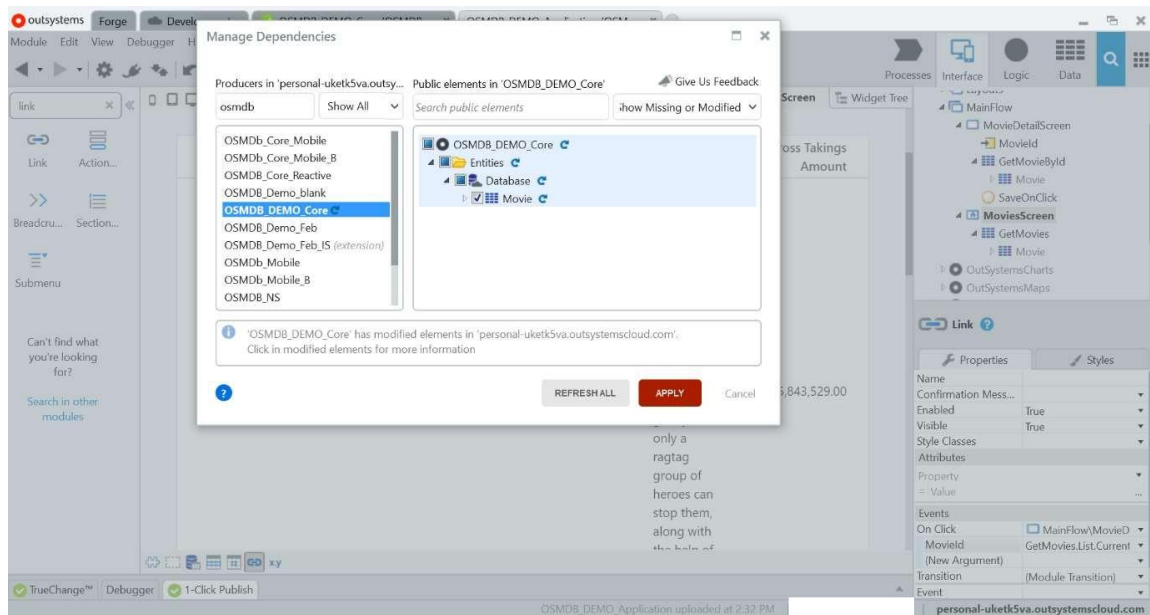
	A	B	C	D
1	Name	Email	PhoneNumber	Address
2	ABC	abc@gmail.com	123-345676	23,34,abc,def
3	DEF	def@gmail	ghj	23,jjh4.
4	John	john@gmail.com	879087099	12, Old street London
5				

Where the entity attributes have following data type:

Name	Text
Email	email
PhoneNumber	PhoneNumber
Address	text

- A. Email number cannot be imported as its doesn't match data type
- B. Phone number cannot be imported as its doesn't match data type
- C. Address number cannot be imported as its doesn't match data type
- D. All field will be imported

53.



There are 2 modules. 'OSMDB' and 'OSMb Core'. OSMDB is referencing one of the entities in 'OSMDB Core'. This entity has been changed and it's published in 'OSMDB Core'. What will happen when we click apply button

- A. It refresh all the dependency automatically
- B. It will show and error message and doesn't allow to publish module
- C. It will show dependency error while opening the module
- D. It will show a warning message and open the module

54. What are the available types of modules in outsystems.?

- A. Reactive,Blank,Service,Extension,Library
- B. Reactive,Blank,Extension,Library
- C. Reactive,Blank,Library
- D. Reactive,Blank

55. How are Attributes and entities mapped in Outsystems?

- A. Rows and columns.
- B. Rows and Tables.
- C. Columns and tables.
- D. Indexes and Columns.

56. Which actions are created while creating an entity?

- A. Create,Update, CreateorUpdate,Fetch
- B. Create,Update, CreateorUpdate,FetchForUpdate
- C. Create,Update, CreateorUpdate,GetForUpdate
- D. Create, Update, CreateorUpdate, DeleteALL

57. In Static entitiy you can create new attributes and define their types.

- A. True
- B. False

58. Which are the possible values of Delete Rule property of the reference attribute?

- A. Ignore
- B. Delete and Protect
- C. Delete,Protect and ignore

59. Can We give Client action As Expression?

- A. Yes
- B. No

60. Which built-in validations are available?

- A. Mandatory fields
- B. Maximum length of text field.
- C. Mandatory and data types of input fields.

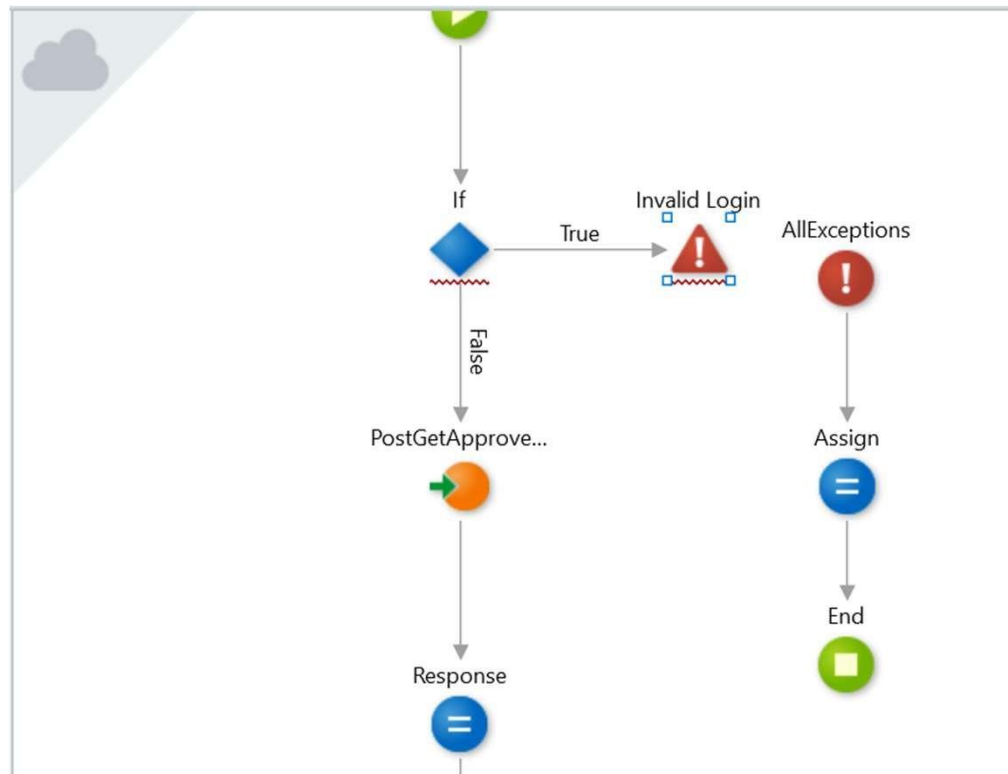
61. Which type of parameters can be created inside a block?

- A. Input parameters, Output Parameters.
- B. Input Parameters, Local Variables and Output Parameters.
- C. Local variables only.
- D. Input parameters and Local variables.

62. Can we use password as Client variable?

- A. True
- B. False

63. Which type of exception will be thrown?



- A. Security exception
- B. User exception
- C. Database exception
- D. Communication exception

64. Which of the following is not possible to be fetched when the screen is initializing?

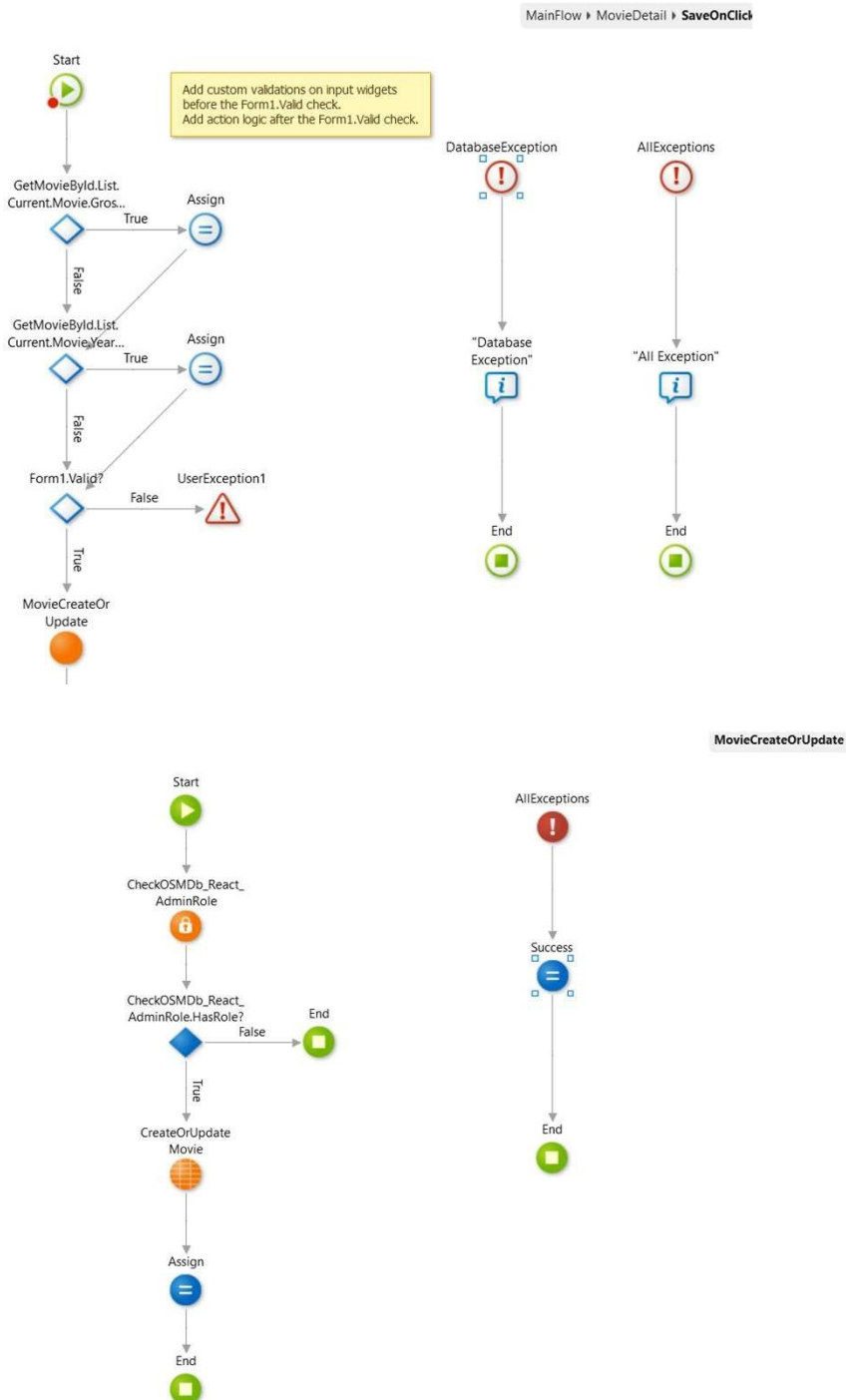
- A. Rest API in the data action flow.
- B. Aggregates in the screen level.
- C. Advanced SQL in the screen level.
- D. Aggregates inside the data action flow.

65. Setting the Function property of a Server Action to Yes?

- A. Restricts it to be used only in Expressions
- B. Restricts it to have exactly one Output Parameter.
- C. Restricts it to have exactly one Input Parameter.
- D. Restricts it from being referenced by other modules.

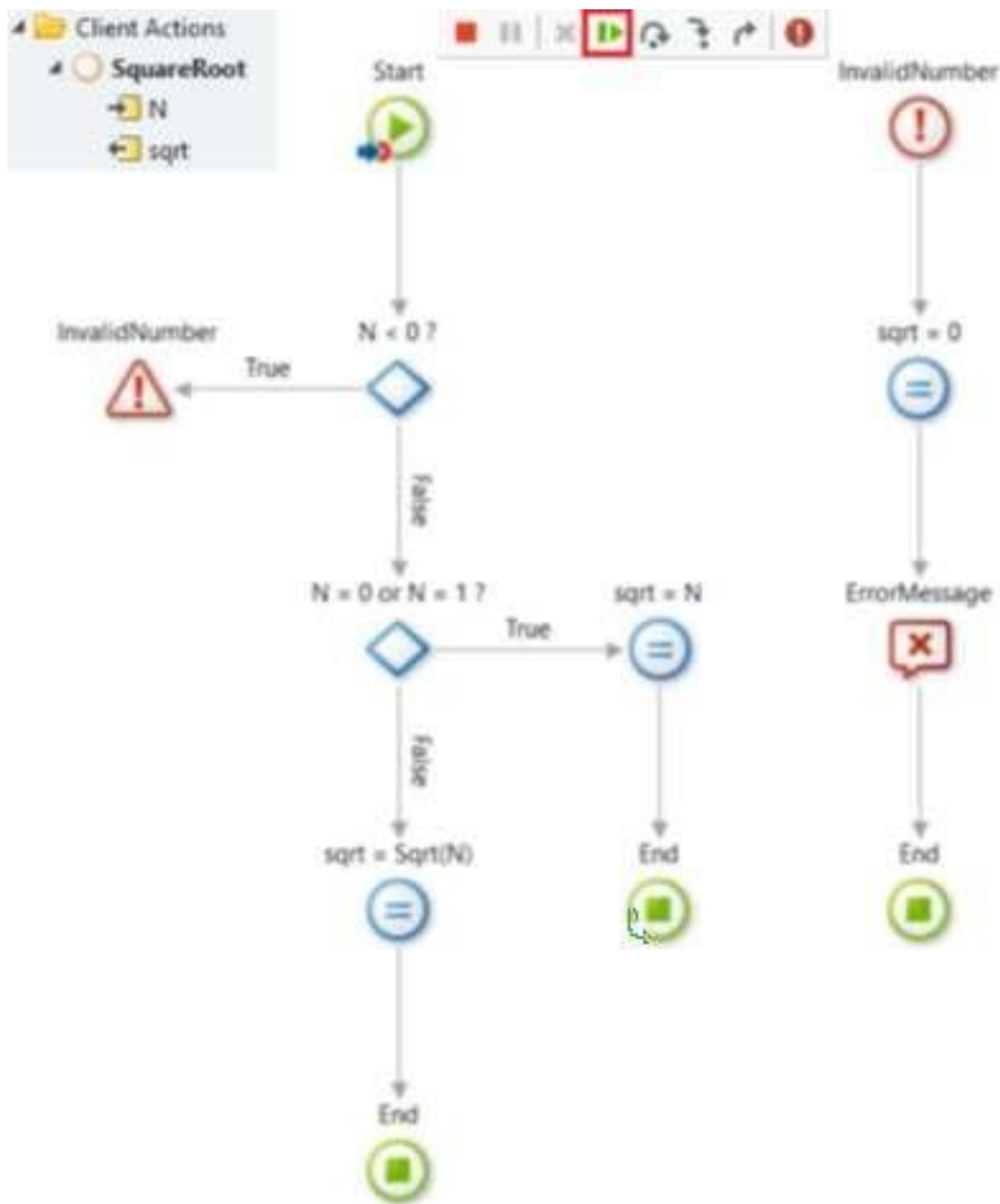
66. Considering Button and Link widgets, which of the following options is true with respect to their 'On click' property?
- A. Both Link and Button widgets don't differ with respect to 'On Click' property.
 - B. Button widgets on click property can be set to external URL but Link widgets cannot.
 - C. Link widget's on click property can be set to a client action as the Destination. Button widgets can't.
 - D. Button widgets' on click property can be set to an event while Link widgets can't.
67. When is the OnParametersChange event triggered?
- A. When the parent of the Block changes the value of at least one of the Block's Input Parameters.
 - B. If the value of a Block's Input Parameters changes inside a Client Action of the Block.
 - C. The On Parameters Changed must be explicitly triggered by the parent of the Block.
 - D. When the parent of the Block changes the value of all the block's Input Parameters.
68. Which of the following is a use case for 'For each' variable?
- A. Generic loop
 - B. Traversing over variable of type list.
 - C. Bulk insert into a static entity.

69. Which exception handler would execute when a database exception is thrown in the 'CreateOrUpdate' entity action from the 'MovieCreateOrUpdate' server action?



- A. AllExceptions handler from 'MovieCreateOrUpdate' will be executed.
- B. DatabaseException handler in the 'SaveOnClick' action.
- C. AllExceptions handler from 'SaveOnClick' will be executed.
- D. AllExceptions handler from 'MovieCreateOrUpdate' will be executed, followed by DatabaseException handler in the 'SaveOnClick' action, AllExceptions handler from 'SaveOnClick'.

70. Consider the following Action, that calculates the square root (sqrt) of a positive decimal number (N). Knowing that the function was called with $N = -1$, and the debugger is available at the Start node, what will happen when the developer selects the Continue (F9) option highlighted in the picture?



- A. The Action will end, with $\text{sqrt} = 0$ and an error message would be shown.
- B. The debugger will stop at Raise 'Invalid Number' exception node..
- C. The debugger will stop in the $N < 0$ If node.

71. Which of the following is true about 'On Render' event?

- A. OnRender event is the first to be triggered when we navigate from one screen to another.
- B. OnRender event is triggered before 'OnReady' event.
- C. OnRender event is re-run every time when there is any change in the data of the screen.
- D. OnRender event is triggered only once when the page is ready to be rendered.

72. What is true about Blocks from the following?

- A. Changes made in the block will be automatically reflected in all its instances.
- B. An event is required in the Parent to catch the notification sent by the block on the change.
- C. An event is required to notify all the other instances about the changes made in the block.
- D. The change has to be done manually on each instance of the block.

73. Which of the following can't be used on an expression?

- A. Strings concatenated using operators.
- B. Output of server actions.
- C. Output of data action of the screen.
- D. Both B and C.

74. Which of the following is true with respect to the below screen setting?

<div> <input type="checkbox"/> MovieDetail Screen </div>	
Name	MovieDetail
Description	
Title	
Public	Yes
Roles	
Anonymous	<input checked="" type="checkbox"/>
Registered	<input checked="" type="checkbox"/>
EndUser	<input checked="" type="checkbox"/>
OSMDB_React_Admin	<input checked="" type="checkbox"/>

- A. No authentication is required.
- B. Only users with username and password can access the screen.
- C. Only users with both 'End User' and 'OSMDB_React_Admin' role can access the screen.
- D. None of the above.

75. What is true about 'CreateOrUpdate' entity action?

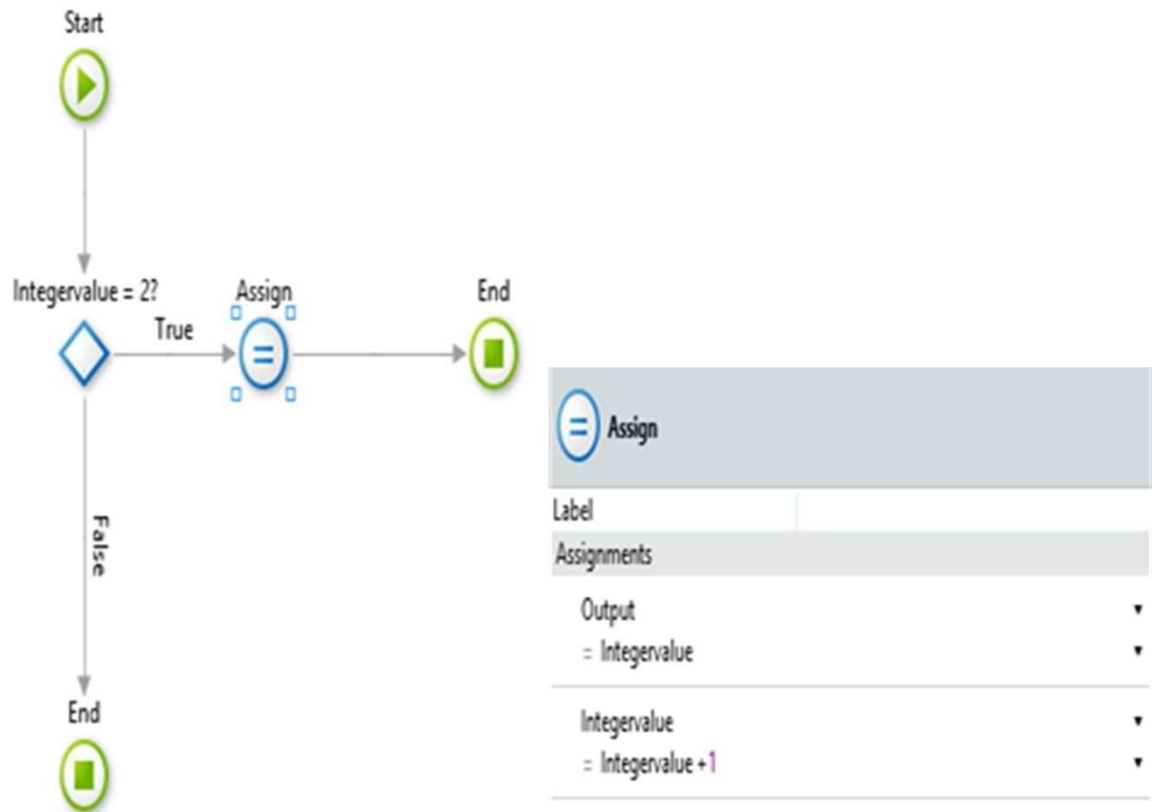
- A. Returns only the id of the created or updated record.
- B. Throws error when the record already exists.
- C. Updates the record when the record identifier is NullIdentifier().
- D. Returns the id and the created or updated record.

76. To ensure that the incorrect data doesn't reach the server, what is to be done?

Note: Built-In validation property is set to True.

- A. Nothing. Since the built-in validation is set to true.
- B. Form.valid property has to be checked before adding the data to the database.
- C. Form.valid property has to be set to false in the action flow.

77. What is the value of 'Output'?



- A. The value of Output is always 2.
- B. The value of the Output will be greater than 2.
- C. The Output Value will be the default value assigned to it.
- D. Output value will be default value or equal to the 'IntegerValue'.

78. If there are 2 entities, Contact and Group. If one Contact belongs to only one Group, how can we create the one-to-many mapping in between them?

- A. Create attribute in Group with datatype as Contact identifier.
- B. Create only with join in between them.
- C. Create attribute in Contact with datatype as Group identifier.

79. While debugging a server action, which of the following isn't possible at all?

- A. Inspect and view the input parameters.
- B. Inspect and view the widgets.
- C. Inspect and view the local variables.
- D. Inspect and view the server actions.

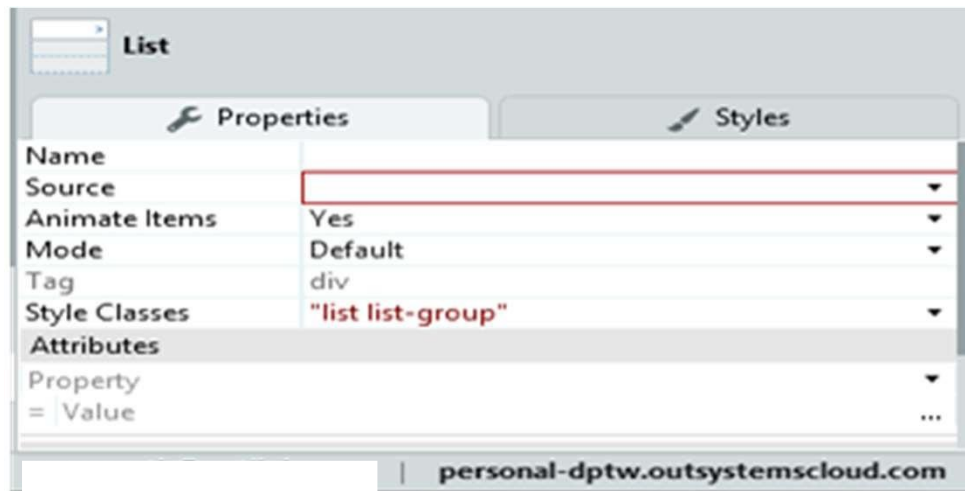
80. To restrict the access of a portion of screen to certain roles, which of the following is true?

- A. Enclose the portion inside an 'If'. Check the role in the If condition.
- B. That portion of the screen can be made a block and we can provide access to certain roles accordingly to that block.
- C. Either A or B can be done.
- D. Access can't be restricted for a portion of a screen alone.

81. I have a server action called 'CalculateInterest' with Public property and Function property set to yes. Can I use this server action as a direct expression in the screen?

- A. No
- B. Yes

82. In the below image, what should be the data type of the value in the Source property?



- A. Structure
- B. Entity
- C. Record
- D. List

83. Consider there are two entities (Entity1 and Entity2) that are related. Entity2 has a reference attribute of type Entity1 identifier. The IsMandatory property of this reference attribute is set to Yes. In an aggregate, Entity1 is added as a source. Now on dragging and dropping Entity2 into the source of the aggregate, what would happen?

- A. The entities will be joined automatically using “With” join
- B. The entities will be joined automatically using “Only With” join
- C. The entities will be joined automatically using “With or Without” join
- D. Both the entities will be there in sources, but no join condition would be specified.

84. Which of the following cannot be used directly in screen expression?

- A. Static Value
- B. Numeric calculated attribute from aggregate output
- C. Output of a Data Action
- D. Output of a Server action.

85. Based on the CheckRegisteredRole action, which of the following implementation is true?

- A. Can be used in client action.
- B. Can be used to hide particular screen widgets or a screen content.
- C. Can be used in Data Action Flow.
- D. Can be used in the screen expression.

86. Need to show the list data on screen

- A. List item is needed inside list control
- B. An expression is used to show the content of list
- C. Input field can be used to show the content of list
- D. All of the above

87. If we have a list of movie which contain multiple movie with same name and following sorting has been defined in aggregate

Movie Title

(ascending) Movie Date

(Descending)

Which is the correct option

- A. It will sort Data base based on Movie Title only
- B. If change the direction of Movie Date then It Will ignore movie Title sort
- C. It will sort entity on movie Date (Descending order) and then Movie Title on Ascending order
- D. It will sort data on movie Title(ascending order) and then Movie Date (Descending order)

- 88.** Which of the following options is false regarding Modules and Applications?
- A. An application is composed of a set of modules.
 - B. Modules can be of different types such as Reactive Web App, Blank or Extension.
 - C. Elements can be exposed and reused, but only within the same application.
 - D. A module that reuses an element from another module is called a Consumer.
- 89.** In which of the following situations is it necessary to define a handler for a Block Event?
- A. When the event has Input Parameters.
 - B. When the Block has Placeholders.
 - C. When the event Input Parameters are all mandatory.
 - D. When the Event is set to mandatory.
- 90.** Which of the following events is not available in Screens or Blocks?
- A. Initialize
 - B. Ready
 - C. After Fetch
 - D. Render
- 91.** Which of the following is the correct syntax for Entities and Attributes?
- A. {Entity}.[Attribute]
 - B. (Entity).{Attribute}
 - C. [Entity].{Attribute}
 - D. Entity.Attribute
- 92.** What is the reason to use form widget on screen?
- A. To use common styling
 - B. Manage the validation on the contained widgets.
 - C. Creating UI easily.
 - D. Makes screen look better.

93. The screen has a Pagination widget that is associated with a Table on a Screen that was already implemented. The *GetMovies* Aggregate is used for datasource. What you will set in the property Max records to display number of records on single page from the aggregate

The screenshot displays the OutSystems IDE interface. On the left, the 'Properties' pane for the 'Navigation\Pagination' widget is shown. The 'MaxRecords' property is set to 'RecordsPerPage'. The 'Events' pane shows the 'OnNavigate' event with a handler 'OnNavigate' and a 'NewStartIndex' argument. In the center, a flow diagram shows a 'Start' node leading to an assignment node 'StartIndex = NewStartIndex', which then leads to an 'End' node. On the right, the 'Properties' pane for the 'GetMovies Aggregate' is shown. The 'Max. Records' property is set to 'RecordsPerPage'. Below the properties, a tree view shows the 'Movies' screen with a 'StartIndex' property, a 'RecordsPerPage' property, and a 'GetMovies' aggregate with an 'OnNavigate' event.

- A. MaxRecords
- B. RecordsPerPage
- C. GetMovies.Count
- D. StartIndex

Answers

1. A	21. C	41. C	61. D	81. A
2. C	22. A	42. D	62. B	82. D
3. A	23. A	43. C	63. A	83. B
4. D	24. C	44. C	64. C	84. D
5. B	25. B	45. A	65. B	85. B
6. A	26. B	46. A	66. A	86. D
7. D	27. D	47. A	67. A	87. D
8. B	28. A	48. B	68. B	88. C
9. A	29. C	49. B	69. A	89. D
10. C	30. B	50. D	70. B	90. C
11. D	31. C	51. A	71. C	91. A
12. C	32. A	52. D	72. A	92. B
13. C	33. C	53. C	73. B	93. A
14. B	34. B	54. A	74. A	
15. A	35. C	55. C	75. A	
16. A	36. C	56. C	76. B	
17. B	37. A	57. A	77. D	
18. D	38. B	58. C	78. C	
19. A	39. B	59. A	79. B	
20. C	40. B	60. C	80. C	