

# Module 3

## Exercise 1

Lightning App :-

The screenshot shows the Salesforce Lightning App Builder interface. The left sidebar has sections for App Settings, App Details & Branding (which is selected), App Options, Utility Items (Desktop Only), Navigation Items, and User Profiles. The main content area is titled "App Details & Branding" and contains fields for "App Name" (Code Playground), "Developer Name" (Code\_Playground), "Image" (a small logo thumbnail), "Primary Color Hex Value" (#0070D2), and a "Description" input field ("Enter a description..."). Below these are "Org Theme Options" and a "Use the app's image and color instead of the org's custom theme" checkbox. At the bottom is an "App Launcher Preview" section showing a card with the logo and name.

Recently Viewed | Customers | Code Playground - Lightning A | +

wiprocom-7e0-dev-ed.develop.lightning.force.com/visualEditor/appBuilder.app?id=02u2w0000042T7pAAE&retUrl=https%3A%2F%2Fwiprocom-7e0-dev-ed.deve... ⋮

Gmail playlist Olympus Algo AWS Skill Builder Modules | Salesforce MANIPAL Code help Salesforce Lightning Components WebComponents... Tenda Wireless Ro...

Lightning App Builder App Settings Pages Code Playground ? Help

**App Settings**

App Details & Branding

**App Options**

Utility Items (Desktop Only)

Navigation Items

User Profiles

**App Options**

App Options

Navigation and Form Factor i

\* Navigation Style  
 Standard navigation  
 Console navigation

\* Supported Form Factors  
 Desktop and phone  
 Desktop  
 Phone

Setup and Personalization i

Setup Experience  
 Setup (full set of Setup options)  
 Service Setup

App Personalization Settings  
 Disable end user personalization of nav items in this app  
 Disable temporary tabs for items outside of this app

Recently Viewed | Customers | Code Playground - Lightning A | +

wiprocom-7e0-dev-ed.develop.lightning.force.com/visualEditor/appBuilder.app?id=02u2w0000042T7pAAE&retUrl=https%3A%2F%2Fwiprocom-7e0-dev-ed.deve... ⋮

Gmail playlist Olympus Algo AWS Skill Builder Modules | Salesforce MANIPAL Code help Salesforce Lightning Components WebComponents... Tenda Wireless Ro...

Lightning App Builder App Settings Pages Code Playground ? Help

**App Settings**

App Details & Branding

App Options

Utility Items (Desktop Only)

**Navigation Items**

User Profiles

**Navigation Items**

Choose the items to include in the app, and arrange the order in which they appear. Users can personalize the navigation to add or move items, but users can't remove or rename the items that you add. Some navigation items are available only for phone or only for desktop. These items are dropped from the navigation bar when the app is viewed in a format that the item doesn't support.

**Available Items**

Type to filter list...

Alert Settings  
All Sites  
Alternative Payment Methods  
App Launcher  
Appointment Invitations  
Approval Requests  
Asset Action Sources  
Asset Actions  
Asset State Periods  
Assets  
Async Operation Logs

**Selected Items**

Leads  
Accounts  
Contacts  
Opportunities  
Cases  
Customers  
Billings

Recently Viewed | Customers | Code Playground - Lightning A | +

wiprocom-7e0-dev-ed.develop.lightning.force.com/visualEditor/appBuilder.app?id=02u2w0000042T7pAAE&retUrl=https%3A%2F%2Fwiprocom-7e0-dev-ed.deve... ⋮

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[Lightning App Builder](#) [App Settings](#) [Pages](#) [Code Playground](#) [Help](#)

### App Settings

- App Details & Branding
- App Options
- Utility Items (Desktop Only)
- Navigation Items
- User Profiles**

#### User Profiles

Choose the user profiles that can access this app.

#### Available Profiles

Type to filter list...

- Analytics Cloud Integration User
- Analytics Cloud Security User
- Authenticated Website
- Authenticated Website
- Contract Manager
- Custom: Marketing Profile
- Custom: Sales Profile
- Custom: Support Profile
- Customer Community Login User
- Customer Community Plus Login User
- Customer Community Plus User
- Customer Community User

#### Selected Profiles

System Administrator

Create a Roll-Up Summary Field | Recently Viewed | Customers | Customer | Salesforce | +

wiprocom-7e0-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/01l2w000003DEuW/FieldsAndRelationships/view ⋮

Gmail Greatlearning login Maps Tenda Wireless Rou... YouTube Salesforce.com, Fo... Salesforce-DEX-450...

Search Setup Home Object Manager

**SETUP > OBJECT MANAGER**  
**Customer**

**Details**

**Fields & Relationships**  
7 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Active	Active__c	Checkbox		
Created By	CreatedBy	Lookup(User)		
Customer	Customer__c	Master-Detail(Customer)	✓	
Customer Name	Name	Text(80)	✓	
Customer Type	Customer_Type__c	Picklist		
Description	Description__c	Text Area(255)		
Last Modified By	LastModifiedBy	Lookup(User)		

Document.docx Show desktop

29°C Haze ENG IN 15:41 24-02-2023

Recently Viewed | Customers | Customer | Salesforce

wiprocom-7e0-dev-ed.lightning.force.com/lightning/setup/ObjectManager/012w000003DEuW/FieldsAndRelationships/00N2w00000U4ZW7/view

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Setup Home Object Manager

## SETUP > OBJECT MANAGER Customer

**Details**

**Fields & Relationships**

- Page Layouts
- Lightning Record Pages
- Buttons, Links, and Actions
- Compact Layouts
- Field Sets
- Object Limits
- Record Types
- Related Lookup Filters
- Search Layouts
- List View Button Layout
- Restriction Rules
- Scoping Rules
- Triggers

**Picklist Options**

Restrict picklist to the values defined in the value set

Controlling Field [\[New\]](#)

**Picklist Values Used**

Active and inactive picklist values 2 (1,000 max)

**Field Dependencies**

No dependencies defined.

**Validation Rules**

No validation rules defined.

**Values**

Action	Values	API Name	Default	Chart Colors	Modified By
<input type="checkbox"/> Edit   Del   Deactivate	Premium	Premium	<input type="checkbox"/>	Assigned dynamically	Deepak Yadav, 20/02/2023, 10:51 pm
<input type="checkbox"/> Edit   Del   Deactivate	Standard	Standard	<input type="checkbox"/>	Assigned dynamically	Deepak Yadav, 20/02/2023, 10:51 pm

**Inactive Values**

No Inactive Values values defined.

[Delete Unused Values](#)

Always show me [more records per related list](#)

Create a Roll-Up Summary Field | Recently Viewed | Billings | Sales | Billing | Salesforce | Customer | Salesforce

wiprocom-7e0-dev-ed.lightning.force.com/lightning/setup/ObjectManager/012w000003DEVZ/view

Gmail Greatlearning login Maps Tenda Wireless Rou... YouTube Salesforce.com, Fo... Salesforce-DEX-450...

Setup Home Object Manager

## SETUP > OBJECT MANAGER Billing

**Details**

**Fields & Relationships**

- Page Layouts
- Lightning Record Pages
- Buttons, Links, and Actions
- Compact Layouts
- Field Sets
- Object Limits
- Record Types
- Related Lookup Filters
- Search Layouts
- List View Button Layout

**Details**

Description

API Name: Billing\_c

Custom

Singular Label: Billing

Plural Label: Billings

Enable Reports

Track Activities

Track Field History

Deployment Status: Deployed

Help Settings: Standard salesforce.com Help Window

[Edit](#) [Delete](#)

Document.docx Show all

30°C Haze ENG IN 15:45 24-02-2023

Screenshot of a web browser showing the Salesforce Object Manager interface for the 'Billing' object.

The browser tabs are:

- Create a Roll-Up Summary Field
- Recently Viewed | Billings | Sales...
- Billing | Salesforce
- Customer | Salesforce

The address bar shows the URL: [wiprocom-7e0-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/01l2w000003DevZ/FieldsAndRelationships/view](https://wiprocom-7e0-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/01l2w000003DevZ/FieldsAndRelationships/view)

The page header includes a search bar and navigation links: Setup, Home, Object Manager.

The main content area displays the 'Fields & Relationships' section for the Billing object. It lists 8 items, sorted by Field Label.

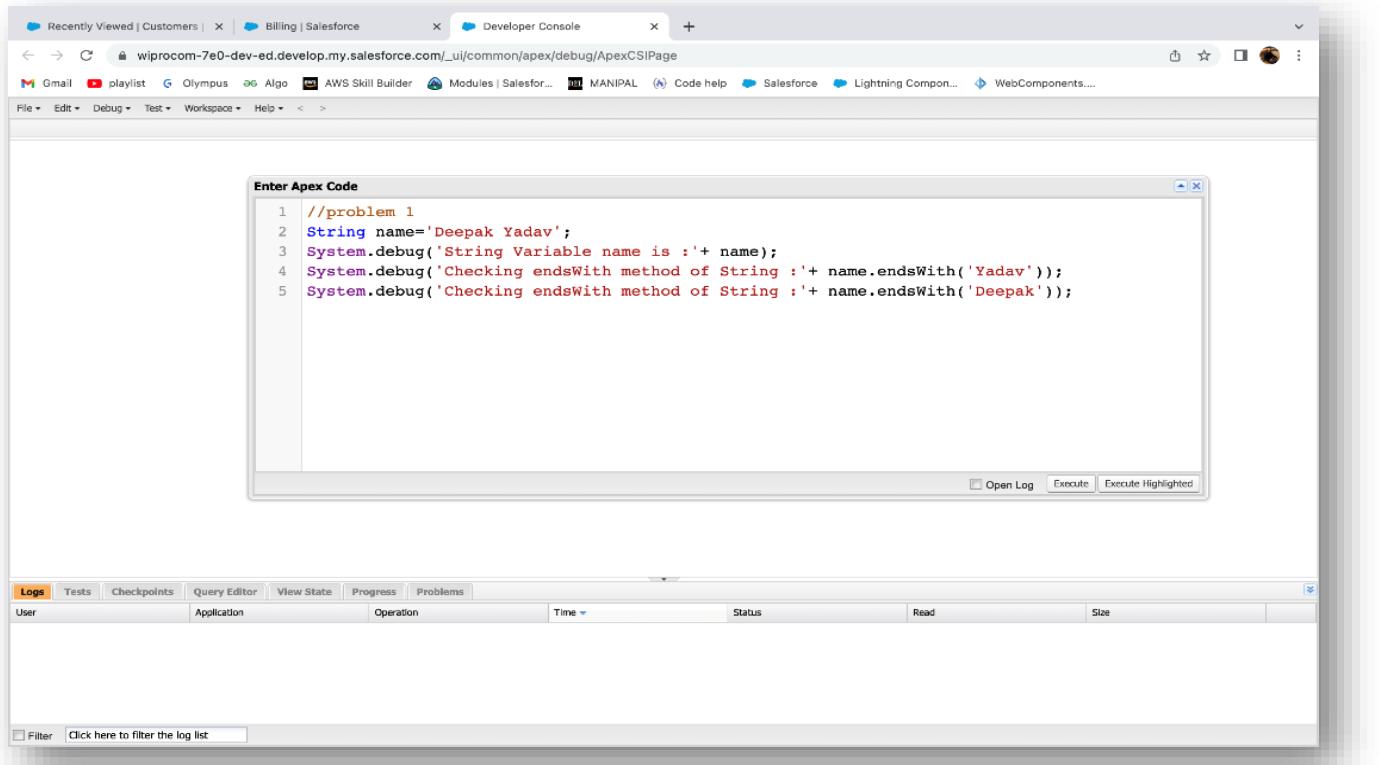
FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Amount Paid	Amount_Paid__c	Currency(18, 0)		
Bill Number	Name	Auto Number		✓
Created By	CreatedById	Lookup(User)		
Customer	Customer__c	Lookup(Customer)		✓
Customer Type	Customer_Type__c	Picklist		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Status	Status__c	Picklist		

Below the table, there are buttons for Quick Find, New, Deleted Fields, Field Dependencies, and Set History Tracking.

The system tray at the bottom shows the following information:

- Document.docx
- 30°C Haze
- Search bar
- File Explorer icon
- Taskbar icons (Calculator, Mail, etc.)
- Network connection icon
- Language: ENG IN
- Date and time: 24-02-2023 15:45

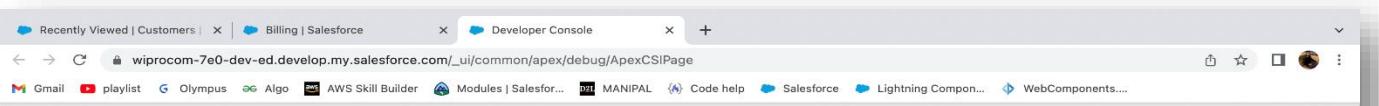
# Exercise 2



The screenshot shows the Salesforce Developer Console interface. At the top, there are three tabs: "Recently Viewed | Customers", "Billing | Salesforce", and "Developer Console". The "Developer Console" tab is active. Below the tabs, the URL is `wiprocom-7e0-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage`. The main area contains an "Enter Apex Code" dialog box with the following Apex code:

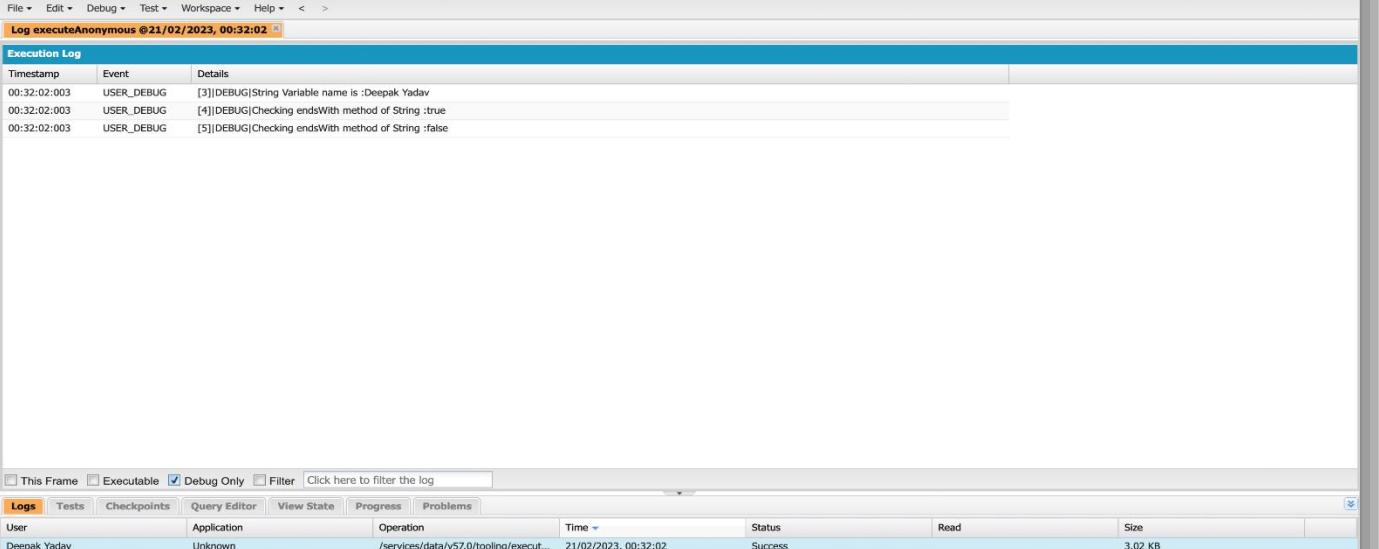
```
1 //problem 1
2 String name='Deepak Yadav';
3 System.debug('String Variable name is :'+ name);
4 System.debug('Checking endsWith method of String :'+ name.endsWith('Yadav'));
5 System.debug('Checking endsWith method of String :'+ name.endsWith('Deepak'));
```

Below the dialog are three buttons: "Open Log", "Execute", and "Execute Highlighted".



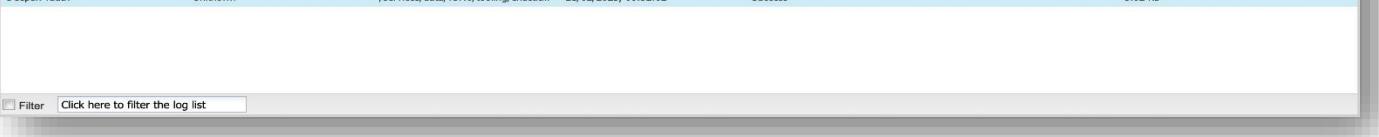
The screenshot shows the "Logs" tab in the Salesforce logs interface. The log table has columns: User, Application, Operation, Time, Status, and Size. There is one entry:

User	Application	Operation	Time	Status	Size
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:32:02	Success	3.02 KB



The screenshot shows the "Logs" tab in the Salesforce logs interface. The log table has columns: This Frame, Executable, Debug Only, Filter, Click here to filter the log, Logs, Tests, Checkpoints, Query Editor, View State, Progress, Problems. There is one entry:

Timestamp	Event	Details
00:32:02:003	USER_DEBUG	[3]DEBUG String Variable name is :Deepak Yadav
00:32:02:003	USER_DEBUG	[4]DEBUG Checking endsWith method of String :true
00:32:02:003	USER_DEBUG	[5]DEBUG Checking endsWith method of String :false



The screenshot shows the "Logs" tab in the Salesforce logs interface. The log table has columns: This Frame, Executable, Debug Only, Filter, Click here to filter the log, Logs, Tests, Checkpoints, Query Editor, View State, Progress, Problems. There is one entry:

User	Application	Operation	Time	Status	Read	Size
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:32:02	Success		3.02 KB

Below the table is a "Filter" input field with the placeholder "Click here to filter the log list".

Recently Viewed | Customers | X | Billing | Salesforce | Developer Console | +

wiprocom-7e0-dev-ed.develop.my.salesforce.com/\_ui/common/apex/debug/ApexCSIPage

Gmail playlist Olympus Algo AWS Skill Builder Modules | Salesfor... MANIPAL Code help Salesforce Lightning Compon... WebComponents...

File Edit Debug Test Workspace Help < >

Enter Apex Code

```
1 //problem 2
2 Date date1=Date.today();
3 Date date2=date1.addDays(30);
4 System.debug('date1 is :'+ date1);
5 System.debug('date2 is :'+ date2);
```

Open Log Execute Execute Highlighted

Logs Tests Checkpoints Query Editor View State Progress Problems

User	Application	Operation	Time	Status	Read	Size
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:32:02	Success		3.02 KB

Filter Click here to filter the log list

Recently Viewed | Customers | X | Billing | Salesforce | Developer Console | +

wiprocom-7e0-dev-ed.develop.my.salesforce.com/\_ui/common/apex/debug/ApexCSIPage

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File Edit Debug Test Workspace Help < >

Log executeAnonymous @21/02/2023, 00:36:57

Execution Log

Timestamp	Event	Details
00:36:57:004	USER_DEBUG	[4]  DEBUG date1 is :2023-02-21 00:00:00
00:36:57:004	USER_DEBUG	[5]  DEBUG date2 is :2023-03-23 00:00:00

This Frame Executable Debug Only Filter Click here to filter the log

Logs Tests Checkpoints Query Editor View State Progress Problems

User	Application	Operation	Time	Status	Read	Size
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:36:57	Success		2.88 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:32:02	Success		3.02 KB

Filter Click here to filter the log list

Recently Viewed | Customers | x Billing | Salesforce x Developer Console x +

wiprocom-7e0-dev-ed.develop.my.salesforce.com/\_ui/common/apex/debug/ApexCSIPage

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File Edit Debug Test Workspace Help < >

Log executeAnonymous @21/02/2023, 00:36:57

Execution Log

Timestamp	Event	Details
00:36:57:004	USER_DEBUG	[4]DEBUG
00:36:57:004	USER_DEBUG	[5]DEBUG

```
1 //problem 3
2 String num='10';
3 Integer num1=Integer.valueOf(num);
4 Integer num2=num1+20;
5 System.debug('Integer From String is :'+ num1);
6 System.debug('Adding 20 to num1 :'+ num2);
```

Open Log  Execute  Execute Highlighted

This Frame Executable  Debug Only  Filter Click here to filter the log

Logs Tests Checkpoints Query Editor View State Progress Problems

User	Application	Operation	Time	Status	Read	Size
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut..	21/02/2023, 00:36:57	Success		2.86 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut..	21/02/2023, 00:32:02	Success		3.02 KB

Filter Click here to filter the log list

Recently Viewed | Customers | x Billing | Salesforce x Developer Console x +

wiprocom-7e0-dev-ed.develop.my.salesforce.com/\_ui/common/apex/debug/ApexCSIPage

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File Edit Debug Test Workspace Help < >

Log executeAnonymous @21/02/2023, 00:36:57 Log executeAnonymous @21/02/2023, 00:39:18

Execution Log

Timestamp	Event	Details
00:39:18:003	USER_DEBUG	[5]DEBUG Integer From String is :10
00:39:18:003	USER_DEBUG	[6]DEBUG Adding 20 to num1 :30

This Frame Executable  Debug Only  Filter Click here to filter the log

Logs Tests Checkpoints Query Editor View State Progress Problems

User	Application	Operation	Time	Status	Read	Size
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut..	21/02/2023, 00:39:18	Success		3.08 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut..	21/02/2023, 00:36:57	Success		2.88 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut..	21/02/2023, 00:32:02	Success		3.02 KB

Filter Click here to filter the log list

Recently Viewed | Customers | Billing | Salesforce | Developer Console

wiprocom-7e0-dev-ed.develop.my.salesforce.com/\_ui/common/apex/debug/ApexCSIPage

Gmail playlist Olympus Algo AWS Skill Builder Modules | Salesforce MANIPAL Code help Salesforce Lightning Components... WebComponents...

File Edit Debug Test Workspace Help < >

Enter Apex Code

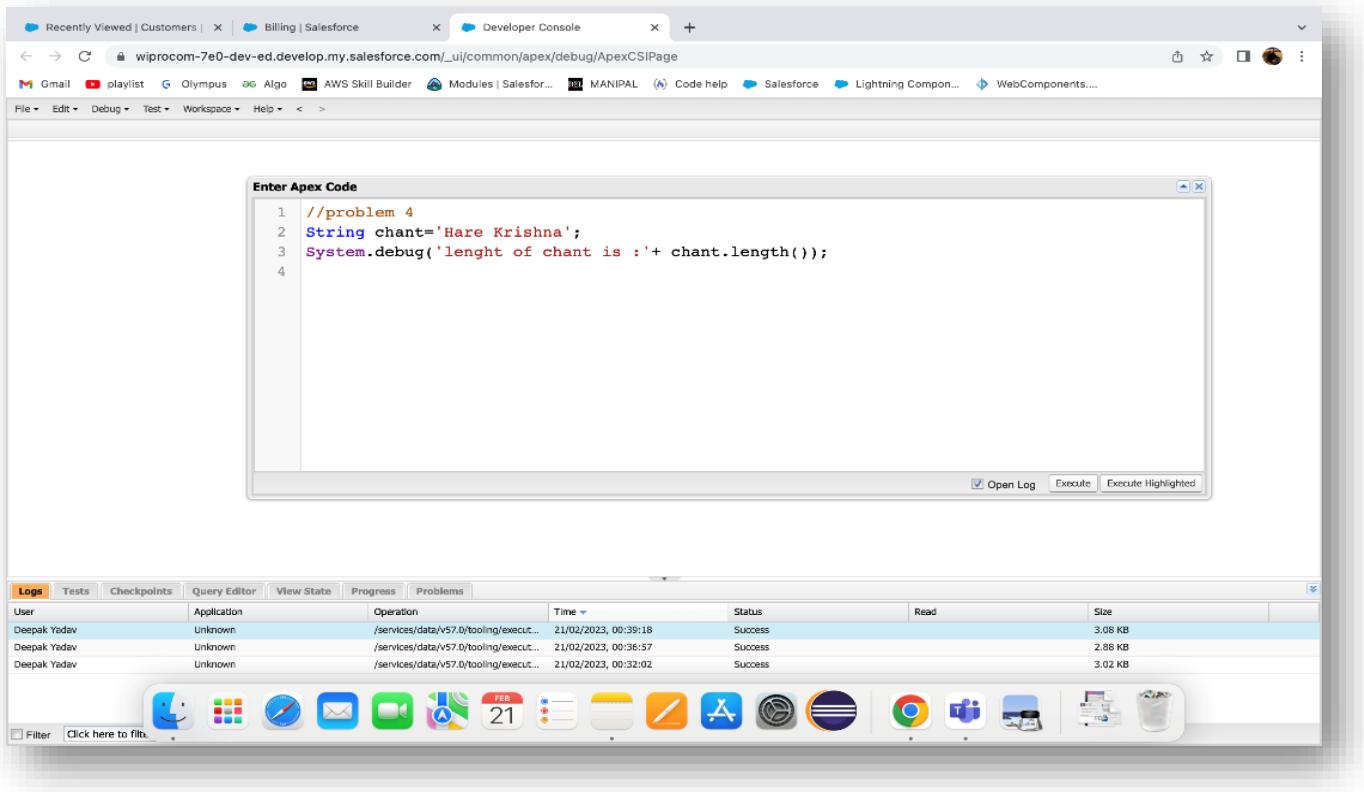
```
1 //problem 4
2 String chant='Hare Krishna';
3 System.debug('length of chant is :'+ chant.length());
4
```

Open Log  Execute  Execute Highlighted

Logs Tests Checkpoints Query Editor View State Progress Problems

User	Application	Operation	Time	Status	Read	Size
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:39:18	Success		3.06 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:36:57	Success		2.88 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:32:02	Success		3.02 KB

Filter  Click here to filter.



Recently Viewed | Customers | Billing | Salesforce | Developer Console

wiprocom-7e0-dev-ed.develop.my.salesforce.com/\_ui/common/apex/debug/ApexCSIPage

Gmail playlist Olympus Algo AWS Skill Builder Modules | Salesforce MANIPAL Code help Salesforce Lightning Components... WebComponents...

File Edit Debug Test Workspace Help < >

Log executeAnonymous @21/02/2023, 00:41:04

Execution Log

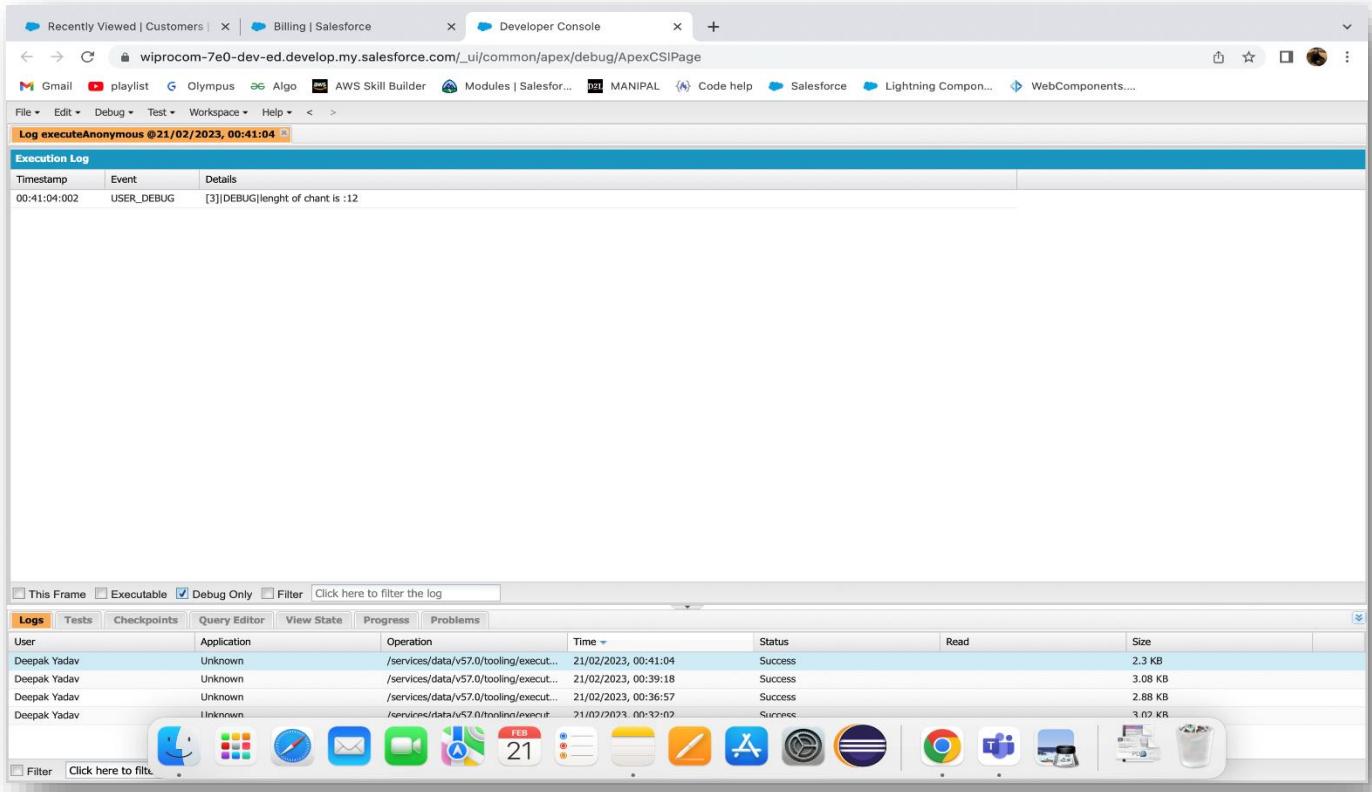
Timestamp	Event	Details
00:41:04:002	USER_DEBUG	[3]DEBUG length of chant is :12

This Frame  Executable  Debug Only  Filter  Click here to filter the log

Logs Tests Checkpoints Query Editor View State Progress Problems

User	Application	Operation	Time	Status	Read	Size
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:41:04	Success		2.3 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:39:18	Success		3.08 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:36:57	Success		2.88 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:32:02	Success		3.02 KB

Filter  Click here to filter.



Recently Viewed | Customers | x Billing | Salesforce x Developer Console x +

wiprocom-7e0-dev-ed.develop.my.salesforce.com/\_ui/common/apex/debug/ApexCSIPage

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File Edit Debug Test Workspace Help < >

Log executeAnonymous @21/02/2023, 00:41:04 Log executeAnonymous @21/02/2023, 00:42:10

**Execution Log**

Timestamp	Event	Details
00:42:10:004	USER_DEBUG	[8]  DEBUG
00:42:10:004	USER_DEBUG	[9]  DEBUG
00:42:10:005	USER_DEBUG	[11]  DEBU
00:42:10:005	USER_DEBUG	[18]  DEBU
00:42:10:005	USER_DEBUG	[20]  DEBU

**Enter Apex Code**

```

1 //problem 5
2 List<Integer> list1=new List<Integer> ();
3 list1.add(4);
4 list1.add(8);
5 list1.add(12);
6 list1.add(28);
7 list1.add(40);
8 System.debug('list1 after using add() method :'+ list1);
9 System.debug('Printing values of List using get() method ::');
10 for(integer i=0;i<list1.size();i++){
11     system.debug(list1.get(i));
12 }
13 list1.set(0,44);
14 list1.set(1,88);
15 list1.set(2,1212);
16 list1.set(3,2828);
17 list1.set(4,4040);
18 System.debug('list1 after set() method :'+ list1);
19 list1.clear();
20 System.debug('list1 after clear() method :'+ list1);
21

```

This Frame  Executable  Debug Only

**Logs Tests Checkpoints Query Editor**

User	Application	Operation	Time	Status	Size
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:42:10	Success	6.6 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:41:04	Success	2.3 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:39:18	Success	3.08 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:36:57	Success	2.88 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:32:02	Success	3.02 KB

Filter Click here to filter the log list

Open Log Execute Execute Highlighted

Recently Viewed | Customers | x Billing | Salesforce x Developer Console x +

wiprocom-7e0-dev-ed.develop.my.salesforce.com/\_ui/common/apex/debug/ApexCSIPage

Gmail playlist Olympus Algo AWS Skill Builder Modules | Salesfor... MANIPAL Code help Salesforce Lightning Compon... WebComponents...

File Edit Debug Test Workspace Help < >

Log executeAnonymous @21/02/2023, 00:41:04 Log executeAnonymous @21/02/2023, 00:42:10

**Execution Log**

Timestamp	Event	Details
00:42:10:004	USER_DEBUG	[8]  DEBUG list1 after using add() method :(4, 8, 12, 28, 40)
00:42:10:004	USER_DEBUG	[9]  DEBUG Printing values of List using get() method ::
00:42:10:005	USER_DEBUG	[11]  DEBUG 4
00:42:10:005	USER_DEBUG	[11]  DEBUG 8
00:42:10:005	USER_DEBUG	[11]  DEBUG 12
00:42:10:005	USER_DEBUG	[11]  DEBUG 28
00:42:10:005	USER_DEBUG	[11]  DEBUG 40
00:42:10:005	USER_DEBUG	[18]  DEBUG list1 after set() method :(44, 88, 1212, 2828, 4040)
00:42:10:005	USER_DEBUG	[20]  DEBUG list1 after clear() method :()

This Frame  Executable  Debug Only  Filter Click here to filter the log

**Logs Tests Checkpoints Query Editor View State Progress Problems**

User	Application	Operation	Time	Status	Read	Size
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:42:10	Success		6.6 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:41:04	Success		2.3 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:39:18	Success		3.08 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:36:57	Success		2.88 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:32:02	Success		3.02 KB

Filter Click here to filter the log list

Get a Refresh on SOQL, SOSL | Home | Salesforce | Developer Console | Salesforce Capstone Project -

wiprocom-7e0-dev-ed.develop.my.salesforce.com/\_ui/common/apex/debug/ApexCSIPage

Gmail playlist Olympus Algo AWS Skill Builder Modules | Salesfor... MANIPAL Code help Salesforce Lightning Compon... WebComponents...

File Edit Debug Test Workspace Help < >

**Enter Apex Code**

```

1  Integer x = 20;
2  While(x > 12){
3      integer m=12;
4      x--;
5      if(x==12){
6          x=x-12;
7      }
8  }
9  integer i=x;
10
11
12 For(integer x=i ; x < 10; x = x + 1){
13     system.debug('Value of x is: ' + x);
14 }

```

Logs Tests Checkpoints Query Editor View

User	Application	Operation	Time	Status	Read	Size
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 12:00:51	Success		9.6 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 11:59:40	Success		9.45 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 11:59:14	Success		5.91 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 11:58:16	Success		6.16 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 11:58:00	Success		5.84 KB

Filter [Click here to filter the log list](#)

Get a Refresh on SOQL, SOSL | Home | Salesforce | Developer Console | Salesforce Capstone Project -

wiprocom-7e0-dev-ed.develop.my.salesforce.com/\_ui/common/apex/debug/ApexCSIPage

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File Edit Debug Test Workspace Help < >

**Execution Log**

Log executeAnonymous @21/02/2023, 12:01:41

Timestamp	Event	Details
12:01:41:003	USER_DEBUG	[13]DEBUG Value of x is: 0
12:01:41:003	USER_DEBUG	[13]DEBUG Value of x is: 1
12:01:41:003	USER_DEBUG	[13]DEBUG Value of x is: 2
12:01:41:003	USER_DEBUG	[13]DEBUG Value of x is: 3
12:01:41:003	USER_DEBUG	[13]DEBUG Value of x is: 4
12:01:41:003	USER_DEBUG	[13]DEBUG Value of x is: 5
12:01:41:003	USER_DEBUG	[13]DEBUG Value of x is: 6
12:01:41:003	USER_DEBUG	[13]DEBUG Value of x is: 7
12:01:41:003	USER_DEBUG	[13]DEBUG Value of x is: 8
12:01:41:003	USER_DEBUG	[13]DEBUG Value of x is: 9

This Frame  Executable  Debug Only  Filter [Click here to filter the log](#)

Logs Tests Checkpoints Query Editor View State Progress Problems

User	Application	Operation	Time	Status	Read	Size
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 12:01:41	Success		9.6 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 12:00:51	Success		9.6 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 11:59:40	Success		9.45 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 11:59:14	Success		5.91 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 11:58:16	Success		6.16 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 11:58:00	Success		5.84 KB

Filter [Click here to filter the log list](#)

# Exercise 3

The screenshot shows the Salesforce Developer Console interface. In the center, there is a code editor window titled "Enter Apex Code" containing the following Apex code:

```
1 Integer myluckyNumber = 15;
2 Integer myunluckyNumber = 7;
3 System.debug('Required Answer is :'+ ((myluckyNumber) != (myunluckyNumber + 8)));
```

Below the code editor is a "Logs" tab in the navigation bar. The "Logs" section displays the execution log for the current session, which includes the following entries:

User	Application	Operation	Time	Status	Size
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:50:30	Success	2.58 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:42:10	Success	6.6 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:41:04	Success	2.3 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:39:18	Success	3.08 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:36:57	Success	2.88 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:32:02	Success	3.02 KB

At the bottom of the logs section, there are filters: "This Frame", "Executable", "Debug Only", "Filter", and "Click here to filter the log list".

This screenshot shows the same Salesforce Developer Console interface as the previous one, but it has been scrolled down to show the results of the code execution. The "Logs" tab is still selected, and the log table now includes an additional row at the top:

User	Application	Operation	Time	Status	Size
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:50:30	Success	2.58 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:42:10	Success	6.6 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:41:04	Success	2.3 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:39:18	Success	3.08 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:36:57	Success	2.88 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:32:02	Success	3.02 KB
Required Answer is :false					

The "Logs" tab is still selected, and the log table now includes an additional row at the top:

User	Application	Operation	Time	Status	Size
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:50:30	Success	2.58 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:42:10	Success	6.6 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:41:04	Success	2.3 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:39:18	Success	3.08 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:36:57	Success	2.88 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:32:02	Success	3.02 KB
Required Answer is :false					

At the bottom of the logs section, there are filters: "This Frame", "Executable", "Debug Only", "Filter", and "Click here to filter the log list".

# Exercise 4

The screenshot shows the Salesforce Developer Console interface. At the top, there are tabs for 'Recently Viewed | Customers' and 'Billing | Salesforce'. Below the tabs, the URL is 'wiprocom-7e0-dev-ed.develop.my.salesforce.com/\_ui/common/apex/debug/ApexCSIPage'. The main area is titled 'Log executeAnonymous @21/02/2023, 00:50:30'. It contains an 'Enter Apex Code' section with the following code:

```
1 Boolean isFalse = false;
2 Boolean isTrue = True;
3 System.debug('Required Value is :'+ (isTrue || isFalse));
```

Below the code is an 'Execution Log' table:

Timestamp	Event	Details	Time	Status	Read	Size
00:50:30:004	USER_DEBUG	[3]  DEBUG	21/02/2023, 00:50:30	Success		2.58 KB

At the bottom of the log table, there are checkboxes for 'This Frame', 'Executable', and 'Debug Only', and a 'Filter' button.

The screenshot shows the Salesforce Developer Console interface, identical to the first one but with a different log timestamp. The title bar shows 'Log executeAnonymous @21/02/2023, 00:50:30' has changed to 'Log executeAnonymous @21/02/2023, 00:54:13'. The 'Execution Log' table shows a single entry:

Timestamp	Event	Details	Time	Status	Read	Size
00:54:13:004	USER_DEBUG	[3]  DEBUG Required Value is :true	21/02/2023, 00:54:13	Success		2.52 KB

At the bottom of the log table, there are checkboxes for 'This Frame', 'Executable', and 'Debug Only', and a 'Filter' button.

# Exercise 5

The screenshot shows the Salesforce Developer Console interface. In the center, there is a code editor window titled "Log executeAnonymous @21/02/2023, 00:54:13". The code entered is:

```
1 Date tomorrow = Date.today().addDays(1);
2 Date today = Date.today();
3 System.debug('Required Answer is :'+ (today != tomorrow));
```

Below the code editor is a table titled "Logs" showing execution details:

User	Application	Operation	Time	Status	Read	Size
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:54:13	Success		2.52 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:50:30	Success		2.58 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:42:10	Success		6.6 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:41:04	Success		2.3 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:39:18	Success		3.08 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:36:57	Success		2.88 KB

At the bottom of the logs section, there is a "Logs" tab selected and a "Filter" button.

The screenshot shows the Salesforce Developer Console interface. In the center, there is a code editor window titled "Log executeAnonymous @21/02/2023, 00:54:13" and "Log executeAnonymous @21/02/2023, 00:56:17". The code entered is:

```
1 Date tomorrow = Date.today().addDays(1);
2 Date today = Date.today();
3 System.debug('Required Answer is :'+ (today != tomorrow));
```

Below the code editor is a table titled "Logs" showing execution details:

User	Application	Operation	Time	Status	Read	Size
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:56:17	Success		2.62 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:54:13	Success		2.52 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:50:30	Success		2.58 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:42:10	Success		6.6 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:41:04	Success		2.3 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 00:39:18	Success		3.08 KB

At the bottom of the logs section, there is a "Logs" tab selected and a "Filter" button.

# Exercise 6

The screenshot shows the Salesforce Developer Console interface. The top navigation bar includes links for Gmail, playlist, Olympus, Algo, AWS Skill Builder, Modules | Salesforce..., MANIPAL, Code help, Salesforce, Lightning Components..., and WebComponents.... The main area displays the Apex code for Exercise 6:

```
1 public class Excercise6 {
2     public static void demo(Integer Score){
3         if(Score ==100){
4             System.debug('Grade: A+');
5         }
6         else if(Score >=90){
7             System.debug('Grade: A');
8         }
9         else if(Score >=80){
10            System.debug('Grade: B');
11        }
12        else{
13            System.debug('Grade: Failed');
14        }
15    }
16 }
17 }
```

Below the code editor is a log viewer titled "Logs". It shows two entries:

User	Application	Operation	Time	Status	Read	Size
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 13:10:05	Success		4.9 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/runTest...	21/02/2023, 12:49:31	Success		2.29 KB

At the bottom of the log viewer, there is a "Filter" input field and a link "Click here to filter the log list".

This screenshot shows another instance of the Salesforce Developer Console. The top navigation bar is identical to the first one. The main area displays the same Apex code for Exercise 6:

```
1 public class Excercise6 {
2     public static void demo(Integer Score){
3         if(Score ==100){
4             System.debug('Grade: A+');
5         }
6         else if(Score >=90){
7             System.debug('Grade: A');
8         }
9         else if(Score >=80){
10            System.debug('Grade: B');
11        }
12        else{
13            System.debug('Grade: Failed');
14        }
15    }
16 }
17 }
```

The "Logs" section shows the same two log entries as the previous screenshot:

User	Application	Operation	Time	Status	Read	Size
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 13:10:05	Success		4.9 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/runTest...	21/02/2023, 12:49:31	Success		2.29 KB

At the bottom of the log viewer, there is a "Filter" input field and a link "Click here to filter the log list".

Get a Refresh on SOQL, SOSL | Home | Salesforce | Developer Console

wiprocom-7e0-dev-ed.develop.my.salesforce.com/\_ui/common/apex/debug/ApexCSIPage

Gmail playlist Olympus Algo AWS Skill Builder Modules | Salesfor... MANIPAL Code help Salesforce Lightning Compon... WebComponents...

File Edit Debug Test Workspace Help < >

Exercise6.apxc Log executeAnonymous @21/02/2023, 13:10:05

**Execution Log**

Timestamp	Event	Details
13:10:05:011	USER_DEBUG	[4]  DEBUG Grade: A+
13:10:05:011	USER_DEBUG	[7]  DEBUG Grade: A
13:10:05:011	USER_DEBUG	[10]  DEBUG Grade: B
13:10:05:011	USER_DEBUG	[13]  DEBUG Grade: Failed

This Frame Executable Debug Only Filter Click here to filter the log

**Logs** Tests Checkpoints Query Editor View State Progress Problems

User	Application	Operation	Time	Status	Read	Size
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 13:10:05	Success		4.9 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/runTest...	21/02/2023, 12:49:31	Success		2.29 KB

Filter Click here to filter the log list

## Exercise 7

Create a Travel Approval Object | Home | Salesforce | Developer Console

wiprocom-7e0-dev-ed.develop.my.salesforce.com/\_ui/common/apex/debug/ApexCSIPage

Gmail playlist Olympus Algo AWS Skill Builder Modules | Salesfor... MANIPAL Code help Salesforce Lightning Compon... WebComponents...

File Edit Debug Test Workspace Help < >

Exercise7.apxc Log executeAnonymous @21/02/2023, 17:58:13

Code Coverage: None API Version: 57 Go To

```

1 public class Excercise7 {
2     public static void demoex7(){
3         /*Initializing the Billing_List list to store the Billing Records
4         List<Billing__c> Billing_List=[SELECT Id, Name, Amount_Paid__c, Status__c FROM Billing__c WHERE CreatedDate = today];
5         List<String> Paid_bill =new List<String>();
6
7         for(Billing__c bill_var:Billing_List){
8             System.debug('Value of Current Record on which Loop is iterating is Billing__c :'+ bill_var);
9             //if Status is paid then add the Billings into a List Paid_bill
10            if(bill_var.Status__c == 'Paid'){
11                Paid_bill.add(bill_var.Name);
12            }
13        }
14        System.debug('Billing Record are :'+Paid_bill );
15
16
17
18    }
19 }
```

**Logs** Tests Checkpoints Query Editor View State Progress Problems

User	Application	Operation	Time	Status	Read	Size
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 17:58:13	Success		5.63 KB

Filter Click here to filter the log list

Create Travel Approval Object | Home | Salesforce | Developer Console | +

wiprocom-7e0-dev-ed.develop.my.salesforce.com/\_ui/common/apex/debug/ApexCSIPage

Gmail playlist Olympus Algo AWS Skill Builder Modules | Salesforce MANIPAL Code help Salesforce Lightning Components... WebComponents...

File Edit Debug Test Workspace Help < >

**Exercise7.apxc** Log executeAnonymous @21/02/2023, 17:58:13

Code Coverage: None API Version: 57 Go To

```

1 public class Excercise7 {
2     public static void demoex7(){
3         //Initializing the Billing
4         List<Billing__c> Billing_Lis
5         List<String> Paid_bill =new
6
7         for(Billing__c bill_var:Bil
8             System.debug('Value of C
9             //if Status is paid then
10            if(bill_var.Status__c =
11                Paid_bill.add(bill_
12            }
13        }
14        System.debug('Billing Recor
15
16    }
17
18 }
19 }
```

**Enter Apex Code**

1 Excercise7.demoex7();

HERE CreatedDate = today;

var);

Open Log Execute Execute Highlighted

**Logs** Tests Checkpoints Query Editor View State Progress Problems

User	Application	Operation	Time	Status	Read	Size
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 17:58:13	Success		5.63 KB

Filter Click here to filter the log list

Create Travel Approval Object | Home | Salesforce | Developer Console | +

wiprocom-7e0-dev-ed.develop.my.salesforce.com/\_ui/common/apex/debug/ApexCSIPage

Gmail playlist Olympus Algo AWS Skill Builder Modules | Salesforce MANIPAL Code help Salesforce Lightning Components... WebComponents...

File Edit Debug Test Workspace Help < >

**Exercise7.apxc** Log executeAnonymous @21/02/2023, 17:58:13

**Execution Log**

Timestamp	Event	Details
17:58:13:040	USER_DEBUG	[8] DEBUG Value of Current Record on which Loop is iterating is Billing__c :Billing__c:{Id=a012w000017ERagAAG, Name=B - 0002, Amount_Paid__c=2000, Status__c=Paid}
17:58:13:040	USER_DEBUG	[8] DEBUG Value of Current Record on which Loop is iterating is Billing__c :Billing__c:{Id=a012w000017ERabAAG, Name=B - 0001, Amount_Paid__c=1000, Status__c=Paid}
17:58:13:040	USER_DEBUG	[14] DEBUG Billing Record are :(B - 0002, B - 0001)

This Frame  Executable  Debug Only  Filter Click here to filter the log

**Logs** Tests Checkpoints Query Editor View State Progress Problems

User	Application	Operation	Time	Status	Read	Size
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 17:58:13	Success		5.63 KB

Filter Click here to filter the log list

# Exercise 8

The screenshot shows the Salesforce Developer Console interface. On the left, the code editor displays the `DiscountClass.apxc` file with the following code:

```
1 public class DiscountClass{
2     static final decimal regularDiscount = 0.1;
3     static decimal finalPrice = 0;
4
5     public static decimal calculateDiscount(Integer price) {
6         //calculating the discount
7         finalPrice = price - price * regularDiscount ;
8         return finalPrice;
9     }
10 }
11 }
```

On the right, an "Enter Apex Code" window is open, containing the following debug statement:

```
1 decimal finalPrice =DiscountClass.calculateDiscount(100);
2 System.debug('finalPrice: '+ finalPrice);
```

Below the code editor, the "Logs" tab is selected in the navigation bar. The log table shows one entry:

Name	Line	Problem

The screenshot shows the Salesforce Developer Console interface. The "Logs" tab is selected in the navigation bar. The log table shows one entry:

Timestamp	Event	Details
17:54:50:003	USER_DEBUG	[2]DEBUG finalPrice: 90.0

At the bottom of the screen, there is a filter bar with the following options: "This Frame", "Executable", "Debug Only", "Filter", and "Click here to filter the log".

# Exercise 9

The screenshot shows the Salesforce Developer Console interface. The top navigation bar includes 'Execute Anonymous', 'Developer Console', and the URL 'wiprocom-7e0-dev-ed.develop.my.salesforce.com/\_ui/common/apex/debug/ApexCSIPage'. Below the navigation is a toolbar with links like Gmail, playlist, Olympus, Algo, AWS Skill Builder, Modules | Salesfor..., MANIPAL, Code help, Salesforce, Lightning Compon..., and WebComponents.... The main workspace shows three tabs: 'InterfaceExample.apxc' (selected), 'PremiumCustomer.apxc', and 'NormalCustomer.apxc'. A status bar at the bottom indicates 'Code Coverage: None' and 'API Version: 57'. The code editor contains the following Apex interface definition:

```
1 public interface InterfaceExample {
2     Double percentageDiscountToBeApplied();
3 }
4 }
```

Below the code editor is a tab bar with 'Logs', 'Tests', 'Checkpoints', 'Query Editor' (selected), 'View State', 'Progress', and 'Problems'. The 'Query Editor' panel contains the query: 'SELECT Id, Name FROM Account'. The 'History' panel on the right shows the following executed queries:

```
History
Executed
SELECT Id, Name, Amount_Paid__c, Status__c FROM Billing__c
SELECT Id, Name, Status__c FROM Billing__c
SELECT Id, Name FROM Account
```

The screenshot shows the Salesforce Developer Console interface. The top navigation bar and toolbar are identical to the previous screenshot. The main workspace shows three tabs: 'InterfaceExample.apxc' (selected), 'PremiumCustomer.apxc', and 'NormalCustomer.apxc'. The code editor contains the following Apex class implementation:

```
1 public class PremiumCustomer implements InterfaceExample {
2     //Implementing interface method
3     public Double percentageDiscountToBeApplied(){
4         //30% Discount for Premium Customer
5         return 0.30 ;
6     }
7 }
8 }
```

The 'Query Editor' panel contains the query: 'SELECT Id, Name FROM Account'. The 'History' panel on the right shows the following executed queries:

```
History
Executed
SELECT Id, Name, Amount_Paid__c, Status__c FROM Billing__c
SELECT Id, Name, Status__c FROM Billing__c
SELECT Id, Name FROM Account
```

Execute Anonymous    Developer Console

wiprocom-7e0-dev-ed.develop.my.salesforce.com/\_ui/common/apex/debug/ApexCSIPage

Gmail playlist Olympus Algo AWS Skill Builder Modules | Salesforce MANIPAL Code help Salesforce Lightning Components... WebComponents...

File Edit Debug Test Workspace Help < >

InterfaceExample.apxc PremiumCustomer.apxc NormalCustomer.apxc

Code Coverage: None API Version: 57 Go To

```
1 public class NormalCustomer implements InterfaceExample {
2     //Implementing interface method
3     public Double percentageDiscountTobeApplied(){
4         //10% Discount for Normal Customer
5         return 0.10 ;
6     }
7 }
8 }
```

Logs Tests Checkpoints Query Editor View State Progress Problems

```
SELECT Id, Name FROM Account
```

Any query errors will appear here...

History

Executed

```
SELECT Id, Name, Amount_Paid__c, S
SELECT Id, Name, Status__c FROM Bil
SELECT Id, Name FROM Account
```

Execute  Use Tooling API

Execute Anonymous    Developer Console

wiprocom-7e0-dev-ed.develop.my.salesforce.com/\_ui/common/apex/debug/ApexExecAnon

Gmail playlist Olympus Algo AWS Skill Builder Modules | Salesforce MANIPAL Code help Salesforce Lightning Components... WebComponents...

```
1 PremiumCustomer pc=new PremiumCustomer();
2 normalCustomer nc=new normalCustomer();
3 System.debug('Discount for Premium Customer : '+ pc.percentageDiscountTobeApplied());
4 System.debug('Discount for Normal Customer : '+ nc.percentageDiscountTobeApplied());
```

Open Log Execute Execute Highlighted

The screenshot shows the Salesforce Developer Console interface. At the top, there's a navigation bar with links like Gmail, playlist, Olympus, Algo, AWS Skill Builder, MANIPAL, Code help, Salesforce, Lightning Components, and WebComponents. Below the navigation bar, the URL is `wiprocom-7e0-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage`. The main area has tabs for InterfaceExample.apxc, PremiumCustomer.apxc, and NormalCustomer.apxc. The current tab is NormalCustomer.apxc, with a sub-tab for Log executeAnonymous @21/02/2023, 19:11:51.

**Execution Log**

Timestamp	Event	Details
19:11:51:023	USER_DEBUG	[3]DEBUG Discount for Premium Customer : 0.3
19:11:51:023	USER_DEBUG	[4]DEBUG Discount for Normal Customer : 0.1

**Logs**

User	Application	Operation	Time	Status	Read	Size
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 19:11:51	Success		5.97 KB

## Exercise 10

The screenshot shows the Salesforce Developer Console interface. The URL is `wiprocom-7e0-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage`. The tab is Excercise10.apxc, with a sub-tab for Log executeAnonymous @24/02/2023, 06:22:28. The code editor contains the following Apex code:

```

1 public class Excercise10 {
2     public static void insert_ex10(){
3         Customer__c customer1 = new Customer__c();
4         customer1.Name='Wipro';
5         customer1.Customer_Type__c='Premium';
6         try{
7             insert customer1; //Inserting a Customer Record
8         }
9
10        Catch(Exception e){
11            System.debug(e);
12        }
13
14
15        List<Billing__c> bills1 = new List<Billing__c>();
16        Billing__c bill_obj=new Billing__c();
17        bill_obj.Status__c='Paid';
18        bill_obj.Amount_Paid__c=500000;
19        bill_obj.Customer__c=customer1.Id;
20        bills1.add(bill_obj);
21
22        if(!bills1.isEmpty()){
23            // storing results in srList
24            Database.SaveResult[] srList=Database.insert(bills1,false); //Inserting Billing record using Database method
25            for(Database.SaveResult bill_var:srList){
26                if(bill_var.isSuccess()){
27                    System.debug('get Id Of Success '+ bill_var.getId());
28                }
29                else{
30                    Database.Error[] srList_err=bill_var.getErrors();
31                    for(Database.Error bill_err:srList_err){
32                        System.debug('Print Error Message :'+ bill_err.getMessage() );
33                        System.debug('Print Status Code :'+ bill_err.getStatusCode());
34                        System.debug('Print Error Field :'+ bill_err.getFields());
35                    }
36                }
37            }
38        }
39    }
40 }

```

An **Enter Apex Code** dialog is open, showing the code `Excercise10.insert_ex10();`. The dialog has buttons for Open Log, Execute, and Execute Highlighted.

Execution Log

Timestamp	Event	Details
00:22:28:039	USER_DEBUG	[11]DEBUG System.DmlException: Insert failed. First exception on row 0; first error: REQUIRED_FIELD_MISSING, Required fields are missing: [Customer__c]; [Customer__c]
00:22:28:084	USER_DEBUG	[27]DEBUG get Id Of Success a012w000017s3JTAAY

This Frame Executable  Debug Only  Filter Click here to filter the log

Logs Tests Checkpoints **Query Editor** View State Progress Problems

Exercise Logs Use Tooling API

# Exercise 11

All Opportunities | Opportunity

wiprocom-7e0-dev-ed.develop.my.salesforce.com/\_ui/common/apex/debug/ApexCSIPage

Exercise10.apxc | Exercise11.apxc | Opportunity.obj | Account.obj | Opportunity@10:25 PM

```
SELECT Id, Amount, StageName, Account.Name, Account.Industry, Account.Website FROM Opportunity WHERE Account.Industry='Energy' AND Account.AnnualRevenue > 5000
```

**Query Results - Total Rows: 10**

Id	Amount	StageName	Account.Name	Account.Industry	Account.Website
0062w00000K2iKeAAJ	125000	Negotiation/Review	United Oil & Gas Corp.	Energy	http://www.uos.com
0062w00000K2iKjAAJ	270000	Proposal/Price Quote	United Oil & Gas Corp.	Energy	http://www.uos.com
0062w00000K2iKjAAJ	120000	Closed Won	United Oil & Gas Corp.	Energy	http://www.uos.com
0062w00000K2iKrAAJ	270000	Negotiation/Review	United Oil & Gas Corp.	Energy	http://www.uos.com
0062w00000K2iKuAAJ	270000	Closed Won	United Oil & Gas Corp.	Energy	http://www.uos.com
0062w00000K2iKwAAJ	915000	Closed Won	United Oil & Gas Corp.	Energy	http://www.uos.com
0062w00000K2iL1AAJ	235000	Closed Won	United Oil & Gas Corp.	Energy	http://www.uos.com
0062w00000K2iL2AAJ	440000	Closed Won	United Oil & Gas Corp.	Energy	http://www.uos.com
0062w00000K2iL4AAJ	120000	Closed Won	United Oil & Gas Corp.	Energy	http://www.uos.com
0062w00000K2iL6AAJ	675000	Needs Analysis	United Oil & Gas Corp.	Energy	http://www.uos.com

Query Grid: Save Rows | Insert Row | Delete Row | Refresh Grid | Access in Salesforce: Create New | Open Detail Page | Edit Page

Logs Tests Checkpoints **Query Editor** View State Progress Problems

SELECT Id, Amount, StageName, Account.Name, Account.Industry, Account.Website FROM Opportunity WHERE Account.Industry='Energy' AND Account.AnnualRevenue > 5000

Any query errors will appear here...

History

Executed

```
SELECT Id, Name, Amount_Paid__c, Status__c FROM Billing__c
SELECT Id, Name, Status__c FROM Billing__c
SELECT Id, Name FROM Account
SELECT Id, Amount, StageName, Account.Name, Account.Industry, Account.Website FROM Opportunity WHERE Account.Industry='Energy' AND Account.AnnualRevenue > 5000
```

Execute  Use Tooling API

# Exercise 12

The screenshot shows the Salesforce Developer Console with the URL [wiprocom-7e0-dev-ed.develop.my.salesforce.com/\\_ui/common/apex/debug/ApexCSIPage](https://wiprocom-7e0-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage). The code editor displays the trigger `CustomerTrigger` for the `Customer__c` object:

```
trigger CustomerTrigger on Customer__c (After insert,After update) {
    if(Trigger.isAfter && (Trigger.isInsert || Trigger.isUpdate)){
        List<Billing__c> bill_ex12=new List<Billing__c>();
        for(Customer__c customer_up:Trigger.New){
            if(customer_up.Active__c==true){
                Billing__c bill =new Billing__c();
                bill.Status__c='Paid';
                bill.Amount_Paid__c=1000000;
                bill_ex12.add(bill);
            }
        }
        if(!bill_ex12.isEmpty()){
            insert bill_ex12;
        }
    }
}
```

Below the code editor is a log table titled "Logs". The log contains six entries from the user Deepak Yadav, each detailing a failed update operation due to a first exception on the record.

User	Application	Operation	Time	Status	Read	Size
Deepak Yadav	Unknown	/services/data/v57.0/tooling/runTest...	24/02/2023, 00:42:37	Success	Unread	9.85 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/runTest...	24/02/2023, 00:41:40	Success	Unread	11.53 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/runTest...	24/02/2023, 00:40:45	Update failed. First exception on ro...	Unread	4.51 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/runTest...	24/02/2023, 00:39:11	Update failed. First exception on ro...	Unread	4.49 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/runTest...	24/02/2023, 00:37:00	Update failed. First exception on ro...	Unread	4.5 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/runTest...	24/02/2023, 00:35:22	Update failed. First exception on ro...	Unread	4.39 KB

# Exercise 13

The screenshot shows the Salesforce Developer Console with the URL [wiprocom-7e0-dev-ed.develop.my.salesforce.com/\\_ui/common/apex/debug/ApexCSIPage](https://wiprocom-7e0-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage). The code editor displays the test class `CustomerTriggerTest`:

```
@isTest
public class CustomerTriggerTest{
    public static testMethod void ex_13Test(){
        Customer__c c13=new Customer__c();
        c13.Active__c=true;
        c13.Customer__c='0o62w000000XZTEAA4';
        c13.Customer_Type__c='Premium';
        insert c13;

        Test.startTest();
        c13.Active__c=true;
        update c13;
        Test.stopTest();

        system.assertEquals(true,c13.Active__c);
        system.assertEquals('Premium',c13.Customer_Type__c);
    }
}
```

Below the code editor is a log table titled "Logs". The log shows 11 successful TestRun entries and one failure for the `DiscountClass` test.

Status	Test Run	Enqueued Time	Duration	Failures	Total	Overall Code Coverage
✓	TestRun @ 12:41:39 am			0	1	Class
✓	TestRun @ 12:42:36 am			0	1	Percent
✓	TestRun @ 12:46:50 am			0	1	Overall
✗	TestRun @ 12:32:49 am			1	1	CustomerTrigger
✗	TestRun @ 12:34:26 am			1	1	DiscountClass
✗	TestRun @ 12:35:22 am			1	1	DisqualifyTestLeads
✗	TestRun @ 12:36:59 am			1	1	Exercise10
✗	TestRun @ 12:39:11 am			1	1	Exercise6

# Exercise 14

The screenshot shows the Salesforce Developer Console with the URL [wiprocom-7e0-dev-ed.develop.my.salesforce.com/\\_ui/common/apex/debug/ApexCSIPage](https://wiprocom-7e0-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage). The code editor contains the following Apex trigger:

```
trigger DisqualifyTestLeads on Lead (before insert) {
    List<Lead> llist = new List<Lead>();
    for(Lead le:Trigger.new)
    {
        if(le.FirstName.equalsIgnoreCase('test')|| string.isBlank(le.FirstName)
           || le.LastName.equalsIgnoreCase('test')||string.isBlank(le.LastName))
        {
            system.debug(le.FirstName + ' ' + le.LastName + ' Will be disqualified!');
            llist.add(le);
        }
    }
    for(Lead l :llist){
        l.status='Disqualified';
    }
}
```

Below the code editor is a log table showing application logs for the user Deepak Yadav. The log entries are:

User	Application	Operation	Time	Status	Read	Size
Deepak Yadav	Unknown	/services/data/v57.0/tooling/runTest...	24/02/2023, 00:46:51	Success	Unread	12.13 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/runTest...	24/02/2023, 00:42:37	Success	Unread	9.85 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/runTest...	24/02/2023, 00:41:40	Success	Unread	11.53 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/runTest...	24/02/2023, 00:40:45	Update failed. First exception on ro...	Unread	4.51 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/runTest...	24/02/2023, 00:39:11	Update failed. First exception on ro...	Unread	4.49 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/runTest...	24/02/2023, 00:37:00	Update failed. First exception on ro...	Unread	4.5 KB

# Exercise 15

The screenshot shows the Salesforce Developer Console with the URL [wiprocom-7e0-dev-ed.develop.my.salesforce.com/\\_ui/common/apex/debug/ApexCSIPage](https://wiprocom-7e0-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage). The code editor contains the following Apex test class:

```
@isTest
public class DisqualifyTestLeadsTest {
    public static testMethod void ex_14Test()
    {
        Lead lead_ex_14=new Lead();
        lead_ex_14.FirstName = 'Nyawi';
        lead_ex_14.LastName = 'Test';
        lead_ex_14.Company = 'Wipro';
        lead_ex_14.Status = 'Open - Not Contacted';

        Test.startTest();
        insert lead_ex_14;
        Test.stopTest();

        system.assertEquals('Wipro', lead_ex_14.Company);
        system.assertEquals('Nyawi', lead_ex_14.FirstName);
    }
}
```

Below the code editor is a test run table showing the results of the test class. The test run details are:

Status	Test Run	Enqueued Time	Duration	Failures	Total
✓	TestRun @ 12:41:39 am			0	1
✓	TestRun @ 12:42:36 am			0	1
✓	TestRun @ 12:46:50 am			0	1
✗	TestRun @ 12:32:49 am			1	1
✗	TestRun @ 12:34:26 am			1	1
✗	TestRun @ 12:35:22 am			1	1
✗	TestRun @ 12:36:59 am			1	1
✗	TestRun @ 12:39:11 am			1	1

On the right side, there is an "Overall Code Coverage" table:

Class	Percent	Lines
DisqualifyTestLeads	100%	8/8
Excercise10	0%	0/19
Excercise6	0%	0/4
Excercise7	0%	0/6
NormalCustomer	0%	0/2
PremiumCustomer	0%	0/2

# Exercise 16

The screenshot shows the Salesforce Developer Console interface. The top navigation bar includes links for Gmail, playlist, Olympus, Algo, AWS Skill Builder, Modules | Salesfor..., MANIPAL, Code help, Salesforce, Lightning Compon..., WebComponents..., and Tenda Wireless Ro... The main area displays the code for OppView.vfp:

```
1 <apex:page standardController="Opportunity">
2   <apex:pageBlock title="Opportunity Details">
3     <apex:pageBlockSection>
4       <apex:outputField value="{! Opportunity.Name }"/>
5       <apex:outputField value="{! Opportunity.Amount }"/>
6       <apex:outputField value="{! Opportunity.CloseDate }"/>
7       <apex:outputField value="{! Opportunity.Account.Name }"/>
8
9     </apex:pageBlockSection>
10   </apex:pageBlock>
11 </apex:page>
```

Below the code editor is the Logs tab, which lists application logs for the user Deepak Yadav:

User	Application	Operation	Time	Status	Read	Size
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	24/02/2023, 01:26:47	Success		7.55 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	24/02/2023, 01:26:23	Success		7.55 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/runTest...	24/02/2023, 00:52:19	Success		10.47 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/runTest...	24/02/2023, 00:46:51	Success	Unread	12.13 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/runTest...	24/02/2023, 00:42:37	Success	Unread	9.85 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/runTest...	24/02/2023, 00:41:40	Success	Unread	11.53 KB

At the bottom of the logs table is a "Filter" button and a placeholder "Click here to filter the log list".

The screenshot shows the Opportunity Details page for an opportunity named "Opportunity Name". The page includes fields for Close Date, Amount, and Account Name.

Opportunity Name	Amount	Account Name
Opportunity Name	Amount	Account Name

# Exercise 17

The screenshot shows the Salesforce Developer Console interface. At the top, the URL is `wiprocom-7e0-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage`. Below the URL, there's a toolbar with various icons and links. The main area displays the Apex code for the `AccountList.vfp` page:

```
1 <apex:page standardController="Account" recordSetVar="Accounts">
2   <apex:pageBlock>
3     <apex:repeat var="a" value="{!Accounts}" rendered="true" id="account_list">
4       <li>
5         <apex:outputLink value="/{!a.ID}">
6           <apex:outputText value="{!a.Name}" />
7         </apex:outputLink>
8       </li>
9     </apex:repeat>
10   </apex:pageBlock>
11 </apex:page>
```

Below the code, there's a table titled "Logs" showing a history of API calls:

User	Application	Operation	Time	Status	Read	Size
Deepak Yadav	Browser	/apex/OppView	24/02/2023, 02:36:43	Success	Unread	1.16 KB
Deepak Yadav	Browser	/apex/NewCaseList	24/02/2023, 02:33:09	Success	Unread	3.24 KB
Deepak Yadav	Browser	/apex/AccountList	24/02/2023, 02:28:49	Success	Unread	1.17 KB
Deepak Yadav	Browser	/apex/OppView	24/02/2023, 02:26:34	Success	Unread	1.17 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	24/02/2023, 01:26:47	Success		7.55 KB
Deepak Yadav	Unknown	/services/data/v57.0/tooling/execut...	24/02/2023, 01:26:23	Success		7.55 KB

At the bottom, there are "Filter" and "Click here to filter the log list" buttons.

The screenshot shows the Salesforce developer console with a list of account names displayed in the main pane. The URL is `https://wiprocom-7e0-dev-ed--c.develop.vf.force.com/apex/AccountList?core.apexpages.request.devconsole=1`. The list includes:

- Burlington Textiles Corp of America
- Dickenson.pio
- Edge Communications
- Express Logistics and Transport
- GenePoint
- Grand Hotels & Resorts Ltd
- Pyramid Construction Inc.
- Salesforce Account for Entitlements
- sForce
- United Oil & Gas Corp.
- United Oil & Gas, Singapore
- United Oil & Gas\_UK
- University of Arizona

# Exercise 18

The screenshot shows the Salesforce Setup interface with the search bar set to "apex". The main content area is titled "Apex Classes" under the "SETUP" tab. It displays the code for the "NewCaseListController" class:

```
1 public class NewCaseListController {  
2     public List<Case> getNewCases(){  
3         List<Case> results =Database.query('SELECT ID, CaseNumber from Case where Status = \'New\'');  
4         return results;  
5     }  
6 }  
7 }
```

The code is syntax-highlighted with green for keywords and blue for identifiers. Below the code editor, there are status indicators: Position: Ln 7, Ch 2 and Total: Ln 7, Ch 205.

The screenshot shows the Salesforce Developer Console with the URL "https://wiprocom-7e0-dev-ed.my.salesforce.com/\_ui/common/apex/debug/ApexCSIPage". The page title is "NewCaseList.vfp". The code editor contains the Visualforce page code:

```
1 <apex:page controller="NewCaseListController">  
2     <apex:repeat value="{!NewCases}" var="case">  
3         <li><apex:outputLink value="/{!case.id}" target="_new"> {!case.CaseNumber}</apex:outputLink></li>  
4     </apex:repeat>  
5 </apex:page>
```

Below the code editor is a "Logs" section showing a table of application logs:

User	Application	Operation	Time	Status	Read	Size
Deepak Yadav	Browser	/setup/build/viewApexClass.apexp	24/02/2023, 02:41:38	Success	Unread	1.02 KB
Deepak Yadav	Browser	/setup/build/viewApexClass.apexp	24/02/2023, 02:40:18	Success	Unread	1.03 KB
Deepak Yadav	Browser	/apex/NewCaseList	24/02/2023, 02:38:45	Success	Unread	3.27 KB
Deepak Yadav	Browser	/apex/AccountList	24/02/2023, 02:37:29	Success	Unread	1.17 KB
Deepak Yadav	Browser	/apex/OppView	24/02/2023, 02:36:43	Success	Unread	1.16 KB
Deepak Yadav	Browser	/apex/NewCaseList	24/02/2023, 02:33:09	Success	Unread	3.24 KB

At the bottom, there is a "Filter" input field with the placeholder "Click here to filter the log list".

