



Section breaker slide

Used for a section heading. You may add a sub heading not exceeding one line also here

Section heading – Arial Headings, bold, 34 font size, should not exceed beyond 1 line

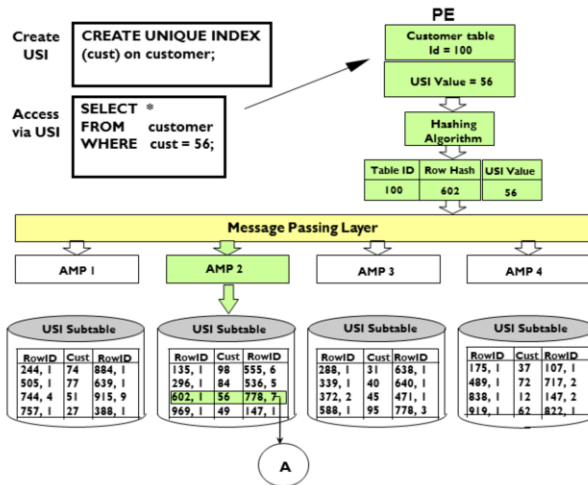
Sub Head – Arial Headings, normal, 18 font size, should not exceed beyond 1 line

Secondary Indexes (SI)

- A secondary Index is an alternate path to access rows of a table
- A table can have from 0 to 32 secondary indexes
- Secondary Indexes:
 - Defined using up to 64 columns
 - Do not effect table distribution
 - Add overhead - disk space & maintenance
 - Secondary Index - internal sub-table
 - Dropping the index causes the sub-table to be deleted
 - May be added or dropped dynamically as needed
 - at table creation (CREATE TABLE)
 - following table creation (CREATE INDEX)
 - Are chosen to improve table access performance
- Types of SI
 - Unique Secondary Index (USI)
 - Non Unique Secondary Index (NUSI)

Secondary indexes can be useful for Satisfying complex conditions and Joining tables.

Unique Secondary Indexes (USI)



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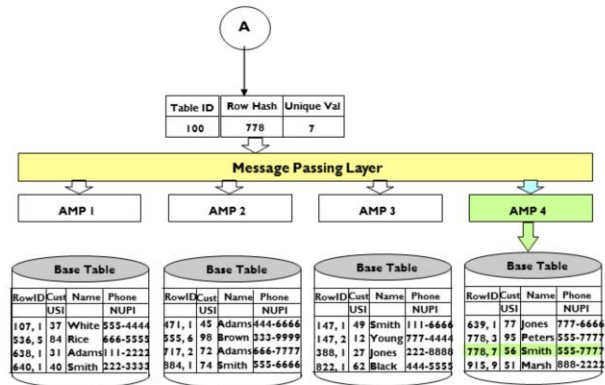
SI subtable columns:

Secondary Index Value

Secondary Index Row ID

Primary Index Row ID

Unique Secondary Indexes USI (Contd.).



- Accessing a row via a USI requires 2 AMPs
- USI subtables are hash distributed

Explain plan – USI

```
EXPLAIN SELECT * FROM client  
WHERE c_phone = '24-529-300-1554';
```

No index on c_phone, hence optimizer is chooses FTS

3) We do an **all-AMPs RETRIEVE** step from MYRETAIL. client by way of an **all-rows scan** with a condition of ("MYRETAIL.client.C_PHONE = '24-529-300-1554'") into SPL 1 (group_amps), which is built locally on the AMPs. The size of SPL 1 is est with no confidence to be 150 rows (19,200 bytes). The est time for this step is 0.04 secs.

4) Finally, we send out an END TXN step to all AMPs involved in processing the request.

- > The contents of SPL 1 are sent back to the user as the result of stmt 1. The total est time is **0.04 secs**.

Explain plan – USI (Contd.).

```
CREATE UNIQUE INDEX client_c_phone (c_phone) ON CLIENT;  
HELP INDEX client;
```

```
EXPLAIN SELECT * FROM client  
WHERE c_phone = '24-529-300-1554';
```

- Noteee USI access is two-amp operation.

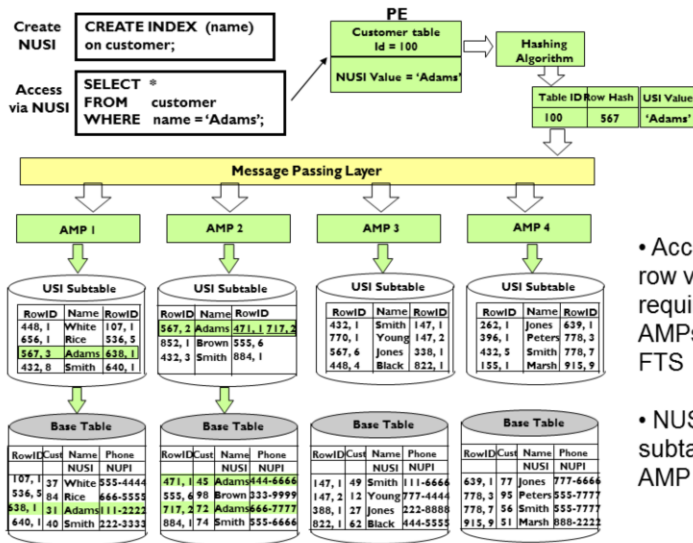
Explanation

First, we do a **two-AMP RETRIEVE** step from MYRETAIL. client by **way of unique index # 8** "MYRETAIL. client.C_PHONE = '24-529-300-1554'" with no residual conditions. The est time for this step is 0.01 secs.

-> The row is sent directly back to the user as the result of

stmt 1. The total est time is **0.01 secs.**

Non Unique Secondary Indexes (NUSI)



Creating SI at table creation time :

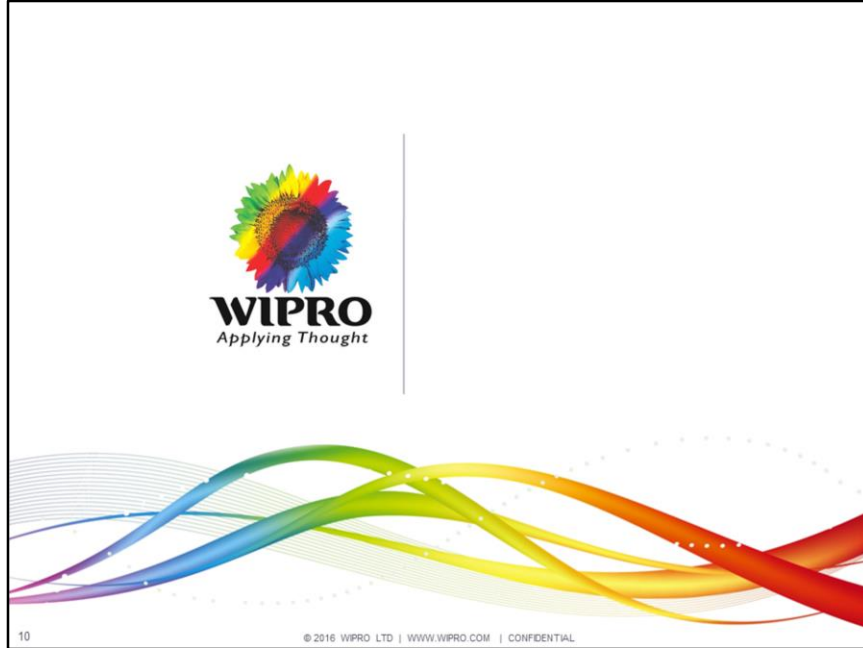
```
CREATE TABLE CUSTOMER
(
  CUST_NUM INTERGER,
  NAME VARCHAR(20)
)
PRIMARY INDEX (CUST_NUM)
INDEX (NAME);
```

Index Wizard

- Demonstration by instructor and followed by practice by participants

PI – SI Quiz

Index Feature	PI	SI
Required?		
Number per table		
Max Number of Columns		
Unique or Non Unique		
Affects Row Distribution		
Created/Dropped Dynamically		
Improves Accesss		
Multiple Data Types		
Separate Physical Structure		
Extra Processing Overhead		



The below and following notes on the template slides are to guide you only. In your final presentation, you may delete these notes and add relevant notes if any.

Title slide:

Title – should not exceed beyond 3 lines, font size 30-34, Arial Headings
(Font size for the title of the PPT can vary between 30-34, Arial Headings, Bold depending on the amount of text, however should not be smaller than 30 font size)
Name should not exceed beyond 1 line, Designation; font size to remain at 18, Arial Headings

Please keep the title slide simple, just the logo, title and name and designation to appear. No other graphic elements or any design, photograph, image can be added to this slide, alignment to remain the same



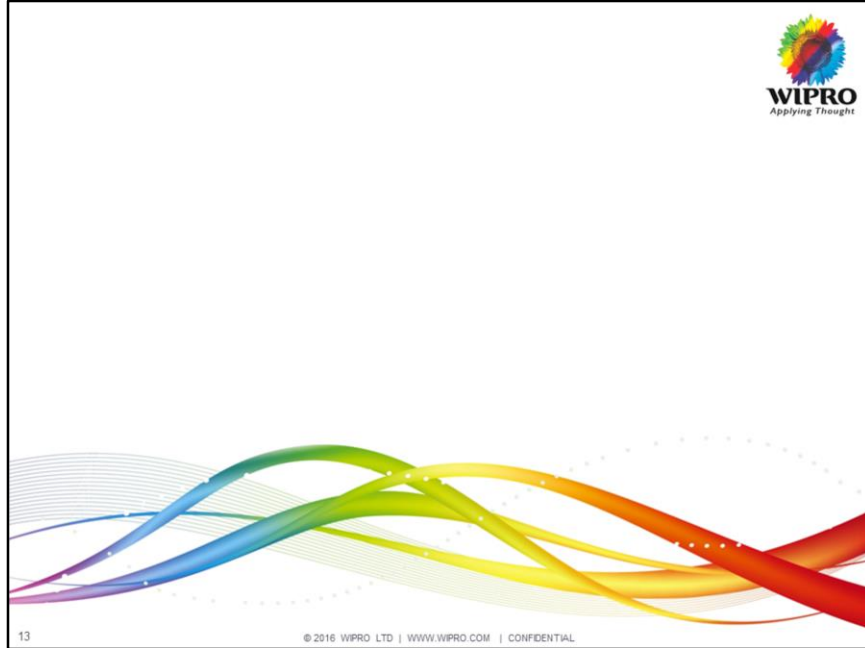
Title slide with customer logo

- Customer logo to be placed on the right
- Use this slide if you need to create a presentation in conjunction/partnership with a
- client/customer. Logo placement cannot be changed
- Title should not exceed beyond 3 lines, font size 30-34, Arial Headings (Font size for the title of
- the PPT can vary between 30-34, Arial Headings, Bold depending on the amount of text, however should not be
- smaller than 30 font size)
- Name should not exceed beyond 1 line, Designation should not exceed beyond 1 line , font size to
- remain at 18,Arial Headings
- Keep this slide simple just the logo, title, name and designation to appear.
- No other graphic elements or any design, photograph, image can be added to this slide , alignment to remain the same



Agenda slide

- Heading – Agenda - Font size 30, Arial Headings
- Agenda points to be in Arial Body (font size 28)
- Please restrict this slide with just 5 agenda points.
- If you have more than 5 points on the agenda slide please add another slide.
- If you have only 3 then you can use just one slide and delete the other 2 points.

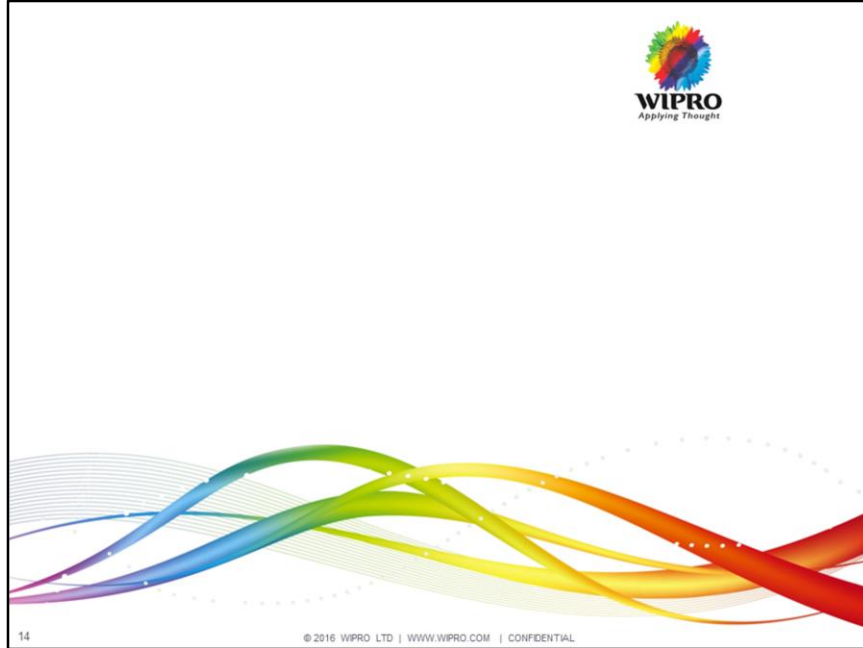


Section breaker slide

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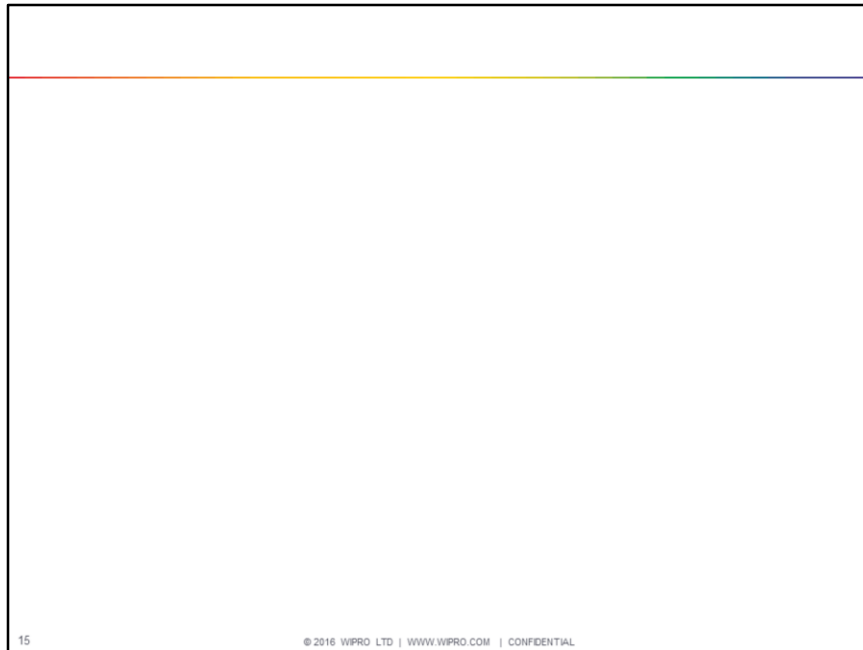
Section heading – Arial Headings, bold, 34 font size, should not exceed beyond 1 line

Sub Head – Arial Headings, normal, 18 font size, should not exceed beyond 1 line



Section breaker slide with customer logo

- Section heading – Arial Headings, 34, Bold
- Sub head – Arial Headings, 18, normal
- Used for a section heading. You may add a sub heading not exceeding one line also here
- Section heading – Arial Headings, bold, 34 font size, should not exceed beyond 1 line
- Sub Head – Arial Headings, normal, 18 font size, should not exceed beyond 1 line



Content Slide: This is usually the most frequently used slide in every presentation.

Use this slide for Text heavy slides. Text can only be used in bullet points

Title Heading – font size 30, Arial Heading

Slide Content – Should not reduce beyond Arial body font 16

If you need to use sub bullets please use the indent buttons located next to the bullets buttons in the tool bar and this will automatically provide you with the second, third, fourth & fifth level bullet styles and font sizes

Please note you can also press the tab key to create the different levels of bulleted content



Column content slide

- This is a slide with 2 columns and you can have text in bullet points under each column. You can have separate header for each of the columns in the blue box provided on top of each of the columns.
- Heading font size of the column should remain at 30 and the column content font size should not reduce beyond 16.

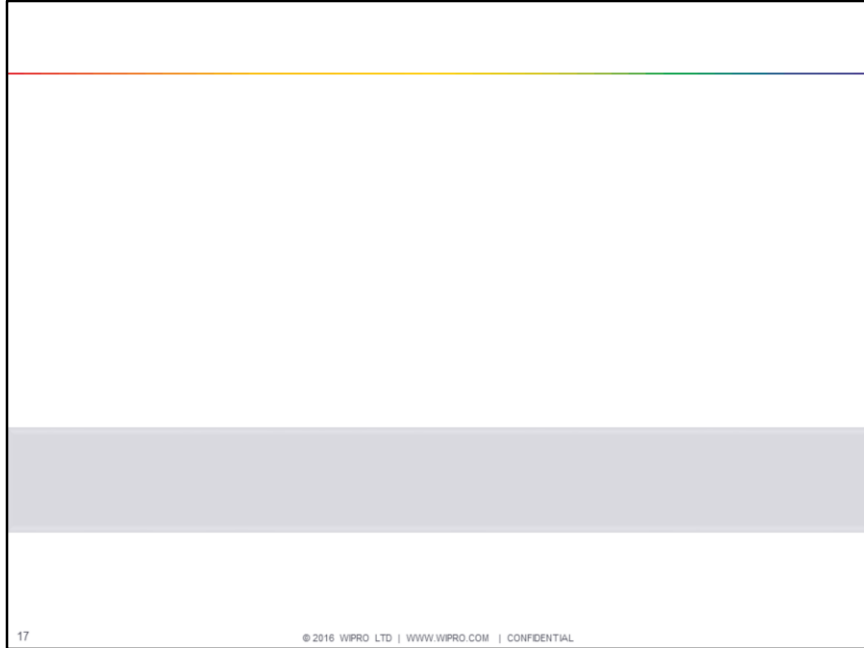


Image slide

The image slides help you represent the topic visually. There are 4 options you can choose from for an image slide.

- Title font size 30, Arial Heading
- Click on the icon to add image, the size of the image will be automatically determined once inserted
- In the text box below the image the content should not exceed beyond 2 lines, font size – 24, Arial normal
- *** Do not alter the size of the image**

**Full Size Image slide**

- The image slides help you represent the topic visually.
- Click on the icon to add image, the size of the image will be automatically determined once inserted
- Except an image do not add any content in this slide



Vertical Image slide - paragraph text

- Use this slide for a vertical image with text that flows in a running paragraph
Text– font size 20, Arial Body
- Click on the icon to add image, the size of the image will be automatically determined once inserted, do not alter the size of the image
- In the text box on the right the font size should not be beyond 20, Arial normal, and ensure the maximum content used is aligned to the size of the image, content should not exceed beyond the size of the image



Vertical Image slide - bullet text

- Use this slide for a vertical image with bulleted text
Text– font size 20, Arial Body
- Click on the icon to add image, the size of the image will be automatically determined once inserted, do not alter the size of the image
- In the text box on the right the font size should not be beyond 20, Arial normal, and ensure the maximum content used is aligned to the size of the image, content should not exceed beyond the size of the image



Horizontal image slide - paragraph text

- Horizontal image with text that flows in a running paragraph **Title – font size 30, Arial Heading**
- Click on the icon to add image, the size of the image will be automatically determined once inserted, do not alter the size of the image
- In the text box below the image the font size should not be beyond 18, Arial normal, and ensure the maximum content used is aligned to 5 lines, content should not exceed beyond the image size



Horizontal image with bulleted text

- Title – font size 30, Arial Headings
- Click on the icon to add image, the size of the image will be automatically determined once inserted, do not alter the size of the image
- In the text box below the bulleted text should not be beyond one line
- Font size should be 20, Arial body normal and should not exceed beyond 4 bullet points



Highlights slide

- To be used only when you want certain highlights of the case study, point of view, define a theme/concept or any other topic to be defined as text that is in a flow and not bulleted.
- Image on the right – relating to the topic
- Text Box 1 : Heading , Arial Heading
- Text Box 2 : Add a small brief of the topic, Arial Body
- Text Box 3 : Highlights of the topic and related text, Arial Body



Case study slide

- Heading: Arial, font size 14
- Body: Arial font size 12
- In case the body copy exceeds 5 lines, the extra copy will be moved to the slide notes.



Title Heading – font size 30, Arial Heading



Option 1

Represents data in a column graph

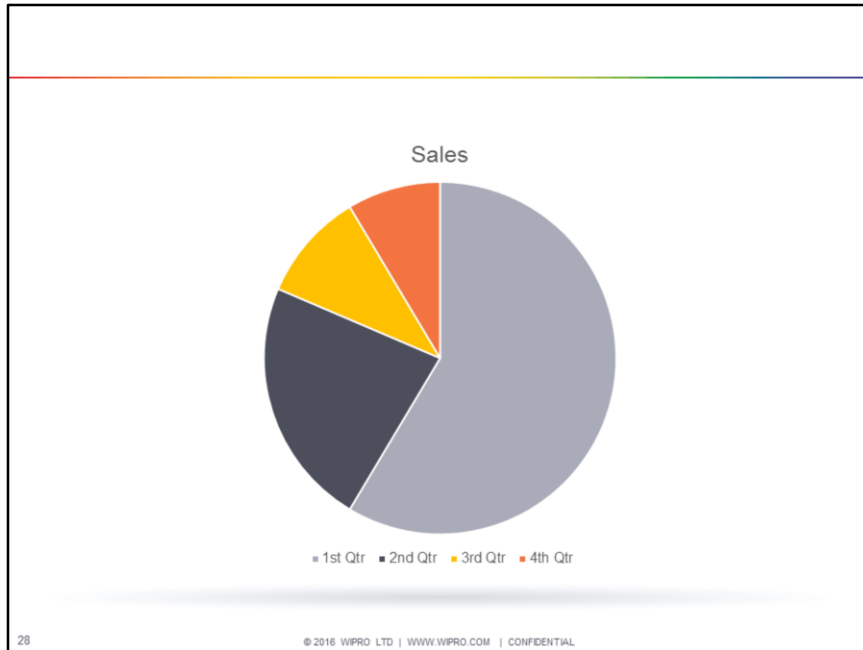
- Title Heading – font size 30, Arial Heading
- Heading – Title of the column graph, font size 30, Arial Headings, should not exceed beyond one line
- Right click on the graph and select edit data to change the data on the graph



Option 2

Represents data in a bar graph

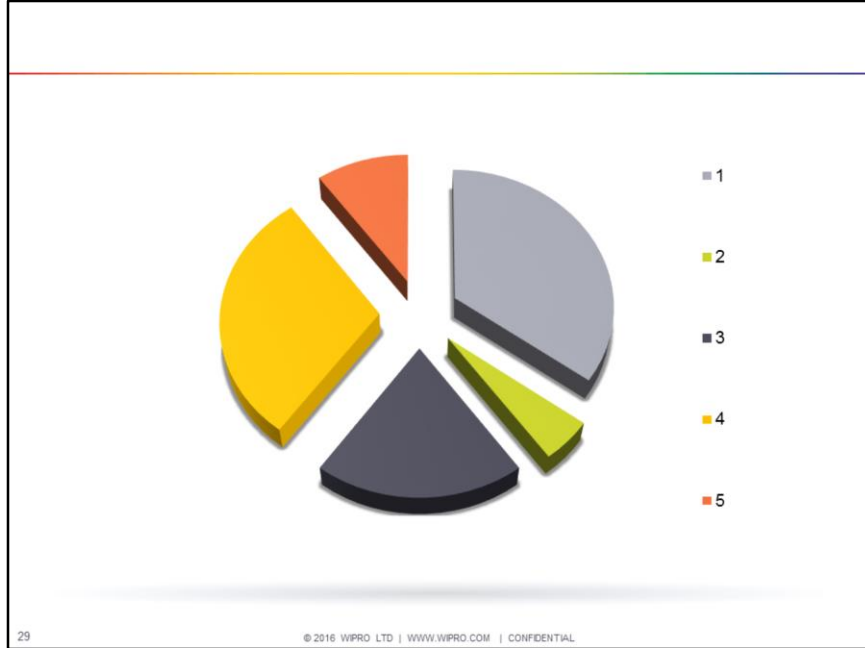
- Title Heading – font size 30, Arial Heading
- Heading – Title of the column graph, font size 30, Arial Headings, should not exceed beyond one line
- Right click on the graph and select edit data to change the data on the graph



Option 3

Represents data in a pie chart

- Title Heading – font size 30, Arial Heading
- Heading – Title of the column graph, font size 30, Arial Headings, should not exceed beyond one line
- Right click on the graph and select edit data to change the data on the graph



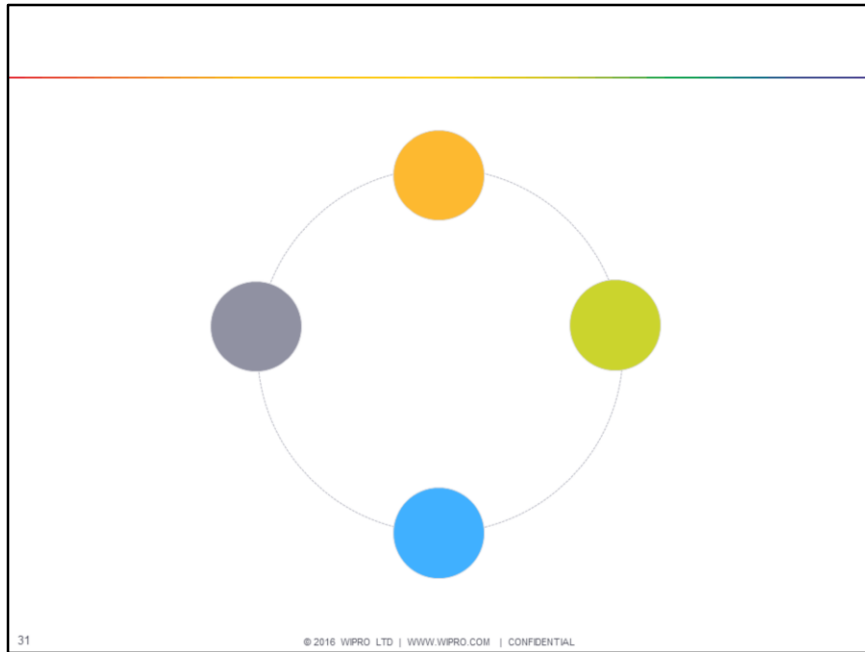
Title Heading – font size 30, Arial Heading



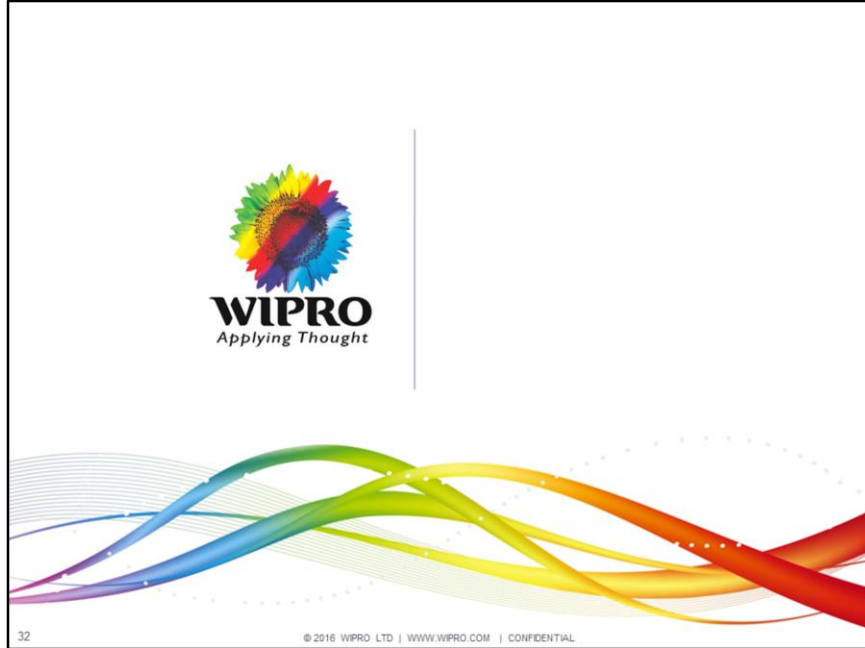
Icon slide

Title Heading – font size 30, Arial Heading

Please refer to the icons library for more icons, you may use icons only from the library



Title Heading – font size 30, Arial Heading



Thank you slide

Thank You– font size 30, Arial Headings

Name & Designation – font size 18, Arial Headings

Your/contact email id – font size 18, Arial Headings



Thank you slide with customer logo

- Thank you slide with the customer logo:
- Should have only the details shown here. Logo placement cannot be changed. Wipro logo to appear on the left as per our corporate guidelines.
- Thank you– font size 30, Arial Headings
- Name & Designation – font size 18, Arial Headings, not to exceed beyond 2 lines
- Your/contact email id – font size 18, Arial Headings