

# Salesforce Marketing Cloud

## AMPscript Lookups & Loops 2 of 2

### Exercise 3b



# Overview

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This exercise is designed to test your understanding of Data Extension Lookups and For Loops in Emails.

Process the tasks in order to complete this exercise.

Each Task in the following Brief will get progressively harder, so if you get stuck or are unsure how to proceed, you can join the conversation in the comments section here: [youtube.com/cameronrobert](https://youtube.com/cameronrobert)

The last pages of this document contain some solutions. Make sure you try solve them yourself before jumping to the end.

This is the second (and harder) in a 2-part exercise. Try AMP-E03a first to build up your knowledge before completing these tasks.

I hope these tasks give you some inspiration for creating dynamic Lookups and For Loops in your communications!

## Required Files

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This exercise requires the use of some Data Extensions with sample data.

You can copy/download all of the items you need from this exercise from this GitHub resource:

<https://github.com/camrobert/SalesforceMarketingCloud/tree/main/Challenge/AMP-E03>



# Brief

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You work in an online cloud education firm in the customer loyalty department. Your goal is to engage with learners on your platform by exciting them about their progress and other courses they could study.

## Email Setup

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- 1 In Content Builder, Create an email using the "Blank Page" template. Name your email "AMP-E03 <yourname>".

To make this exercise easier to complete, all tasks will be conducted in this newly created, blank email.

Similar to exercise AMP-E03a, many of the tasks in this exercise are not suitable to run on large data sets.

In the real world, many of these tasks would have been pre-calculated using SQL making the lookup/loop functions much easier to write.

Additionally, many of the following tasks would normally constitute their own email or journey.

Hopefully this doesn't break the immersion too much and you still get the maximum value from



# Task 1

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After your resounding success with the Learner Report Cloud Page, your leader has advised you that there will likely be some email campaigns based on your analytical insights.

You decide to get ahead of the request and begin building an email. You start with the following Content Block:

Hi %%Name%%,

It ain't much, but it's honest work...

## Objective

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Create a new HTML content block and use AMPscript to insert the Name value.

Use the [AMP-E03\_CloudLearners] Data Extension to preview the email for all 5 learners.

## Expected Results

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Hi Alpha,      Hi Bravo,      Hi Charlie,      Hi Delta,      Hi Echo,



# Task 2

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You barely finish previewing your code when your leader asks you to recreate the "Count of Beams" and "Sum of Points" from your report.

They look over your shoulder and direct you to code the following:

Hi %%Name%%,  
You've Completed %%Beams%% Beams and earned %%Points%% Points.

## Objective

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Alter your HTML content block, and use AMPscript to calculate and insert the values into the copy provided.

Remember to Lookup [AMP-E03\_CloudLearner\_Beams] to get the Count and Sum values required.

## Expected Results

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Hi Alpha,  
You've Completed 10 Beams and earned 33400 Points.

Hi Bravo,  
You've Completed 10 Beams and earned 33200 Points.

Hi Charlie,  
You've Completed 6 Beams and earned 13150 Points.



# Task 3

You just send off a sample email when your leader arrives with the next requirement - a content block that shows the last 3 courses completed.

Your leader wants the content to be displayed in a 3-column, mobile responsive format. They included the following mock up:

1st Latest Name Completed Date Points Earned / Points	2nd Latest Name Completed Date Points Earned / Points	3rd Latest Name Completed Date Points Earned / Points
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1st Latest Name Completed Date Points Earned / Points
2nd Latest Name Completed Date Points Earned / Points
3rd Latest Name Completed Date Points Earned / Points

## Objective

Add a 3-column layout to produce the requested content.

Only the 3 latest completed courses (Name, CompleteDate, Points Earned & Course Points) should be shown.

Use a 1px Black Border around each content block in the layout.

## Expected Results

Hi Delta,  
You've Completed 9 Beams and earned 35100 Points.

Designing for NonProfit in the Cloud 11/8/2021 12:00:00 AM 3200 / 4000
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Control Centre Cloud 10/31/2021 12:00:00 AM 4950 / 5500
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Service Support in the Cloud 10/29/2021 12:00:00 AM 3150 / 4500
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Hi Delta,  
You've Completed 9 Beams and earned 35100 Points.

Designing for NonProfit in the Cloud 11/8/2021 12:00:00 AM 3200 / 4000
Control Centre Cloud 10/31/2021 12:00:00 AM 4950 / 5500
Service Support in the Cloud 10/29/2021 12:00:00 AM 3150 / 4500



# Task 4

Your leader has shown your amazing work to the business managers and they are excited with the email so far!

The Chief Loyalty Officer asks if you can include a list of courses the learner has started but not completed, in the following format (right).

They mention that this section/content should ONLY show for Learners with incomplete courses.

## Don't forget about these Beams

%%CourseName%%

Earn up to %Points%% Points

Started on %%StartDate%%

%%CourseName%%

Earn up to %Points%% Points

Started on %%StartDate%%

## Objective

Add some dynamic HTML to produce the required content.  
Each course in the list should be separated by a 1px black border.

## Expected Results

Hi Charlie,  
You've Completed 6 Beams and earned 13150 Points.

Cloud Admin Intermediate 10/27/2021 12:00:00 AM 2800 / 4000	Reporting in the Cloud 10/24/2021 12:00:00 AM 1400 / 2000	Cloud Customer Service 10/16/2021 12:00:00 AM 2450 / 3500
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Hi Delta,  
You've Completed 9 Beams and earned 35100 Points.

Designing for NonProfit in the Cloud 11/8/2021 12:00:00 AM 3200 / 4000	Control Centre Cloud 10/31/2021 12:00:00 AM 4950 / 5500	Service Support in the Cloud 10/29/2021 12:00:00 AM 3150 / 4500
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### Don't forget about these Beams

Commerce using Cloud  
Earn up to 8000 Points  
Started on 9/23/2021 12:00:00 AM  
Agile Development in the Cloud  
Earn up to 7000 Points  
Started on 11/4/2021 12:00:00 AM



# Answers

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# Answers

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**Note:** Many of these Tasks can be solved multiple ways using AMPscript. The Answers below are not exclusively correct, however they will work if copied into your email for this exercise.

Answers are shown in HTML for formatting purposes.

```
1 Hi %%Name%%,
```

  

```
2 %%[  
  SET @Points = 0  
  SET @Beams = 0  
  SET @rowbeams = LookupRows('AMP-E03_CloudLearner_Beams',  
    'CloudLearnerID',ID)  
  
  FOR @b = 1 TO ROWCOUNT(@rowbeams) DO  
    IF Field(Row(@rowbeams,@b),'Points') > 0 THEN  
      SET @Points = add(@Points,Field(Row(@rowbeams,@b),'Points'))  
      SET @Beams = add(@Beams,1)  
    ENDIF  
  NEXT @b]%%  
  
Hi %%Name%%,<br>  
You've Completed %%=v(@Beams)=%% Beams and earned  
%%=v(@Points)=%% Points.
```



# Answers

3

```
%%[  
SET @latestrows = LookupOrderedRows('AMP-  
E03_CloudLearner_Beams',3,'CompleteDate Desc', 'CloudLearnerID',ID)  
]%%
```

```
%%=Lookup('AMP-E03_Beams', 'Name', 'ID',  
Field(Row(@latestrows,1),'BeamsID'))=%%<br>  
%%=Field(Row(@latestrows,1),'CompleteDate')=%%<br>  
%%=Field(Row(@latestrows,1),'Points')=%% / %%=Lookup('AMP-E03_Beams',  
'Points', 'ID', Field(Row(@latestrows,1),'BeamsID'))=%%<br>
```

```
%%=Lookup('AMP-E03_Beams', 'Name', 'ID',  
Field(Row(@latestrows,2),'BeamsID'))=%%<br>  
%%=Field(Row(@latestrows,2),'CompleteDate')=%%<br>  
%%=Field(Row(@latestrows,2),'Points')=%% / %%=Lookup('AMP-  
E03_Beams', 'Points', 'ID', Field(Row(@latestrows,2),'BeamsID'))=%%<br>
```

```
%%=Lookup('AMP-E03_Beams', 'Name', 'ID',  
Field(Row(@latestrows,3),'BeamsID'))=%%<br>  
%%=Field(Row(@latestrows,3),'CompleteDate')=%%<br>  
%%=Field(Row(@latestrows,3),'Points')=%% / %%=Lookup('AMP-  
E03_Beams', 'Points', 'ID', Field(Row(@latestrows,3),'BeamsID'))=%%<br>
```



# Answers

4

```
%%[SET @rowbeams = LookupRows('AMP-E03_CloudLearner_Beams',  
'CloudLearnerID',ID)  
SET @counter = 0  
FOR @b = 1 TO ROWCOUNT(@rowbeams) DO  
IF EMPTY(Field(Row(@rowbeams,@b),'Points')) THEN  
SET @counter = add(@counter,1)  
IF @counter == 1 THEN]%%  
<b>Don't forget about these Beams</b><br><br>  
%%[ENDIF]%%  
<table cellpadding="0" cellspacing="0" width="100%"  
role="presentation" style="background-color: transparent; min-width:  
100%; border-top: 0px; border-right: 0px; border-bottom: 1px solid  
#000000; border-left: 0px; " class="stylingblock-content-wrapper">  
<tr>  
  <td style="padding: 0px; " class="stylingblock-content-wrapper  
camarker-inner">  
    %%=Lookup('AMP-E03_Beams', 'Name', 'ID',  
Field(Row(@rowbeams,@b),'BeamsID'))=%%<br>  
Earn up to %%=Lookup('AMP-E03_Beams', 'Points', 'ID',  
Field(Row(@rowbeams,@b),'BeamsID'))=%% Points<br>  
Started on %%=Field(Row(@rowbeams,@b),'StartDate')=%%<br>  
  </td>  
</tr>  
</table>  
%%[ENDIF  
NEXT @b]%%
```

