DAILY ASSESSMENT FORMAT

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FORENOON SESSION DETAILS
Image of session

Report – Report can be typed or hand written for up to two pages.

Digital marketing encompasses all marketing efforts that use an electronic device or the internet. Businesses leverage digital channels such as search engines, social media, email, and other websites to connect with current and prospective customers.

A seasoned inbound marketer might say inbound marketing and digital marketing are virtually the same thing, but there are some minor differences. And conversations with marketers and business owners in the U.S., U.K., Asia, Australia, and New Zealand, I've learned a lot about how those small differences are being observed across the world.

What is the role of digital marketing to a company?

While traditional marketing might exist in print ads, phone communication, or phsycial marketing, digital marketing can occur electronically and online. This means that there are a number of endless possibilities for brands including email, video, social media, or website-based marketing opportunities.

At this stage, digital marketing is vital for your business and brand awareness. It seems like every other brand has a website. And if they don't, they at least have a social media presence or digital ad strategy. Digital content and marketing is so common that consumers now expect and rely on it as a way to learn about brands.

Long story short, to be competitive as a business owner, you'll need to embrace some aspects of digital marketing.

Because digital marketing has so many options and strategies associated with it, you can get creative and experiment with a variety of marketing tactics on a budget. With digital marketing, you can also use tools like analytics dashboards to monitor the success and ROI of your campaigns more than you could with a traditional promotional content -- such as a billboard or print ad.

FEATURED RESOURCE
Free Marketing Plan Template
Fill out this form to access the template.

Hi 👋 What's your name?
First Name

Last Name

Hi null, what's your email address?
Email Address
And your phone number?
Phone Number
What is your company's name and website?
Company

Website
How many employees work there?

1
Does your company provide any of the following services?
Web Design
Online Marketing
SEO/SEM
Advertising Agency Services
⚬ Yes
⚬ No

Get Your Free Template

How does a business define digital marketing?

Digital marketing is defined by the use of numerous digital tactics and channels to connect with customers where they spend much of their time: online. From the website itself to a business's online branding assets -- **digital advertising**, **email marketing**, online brochures, and beyond -- there's a spectrum of tactics that fall under the umbrella of "digital marketing."

The best digital marketers have a clear picture of how each digital marketing campaign supports their overarching goals. And depending on the goals of their marketing strategy, marketers can support a larger campaign through the free and paid channels at their disposal.

A **content marketer**, for example, can create a series of blog posts that serve to generate leads from a new ebook the business recently created. The company's **social media marketer** might then help promote these blog posts through paid and organic posts on the business's **social media accounts**. Perhaps the **email marketer** creates an email campaign to send those who download the ebook more information on the company. We'll talk more about these specific digital marketers in a minute.

Types of Digital Marketing

Search Engine Optimization (SEO)

Content Marketing

Social Media Marketing

Pay Per Click (PPC)

Affiliate Marketing

Native Advertising

Marketing Automation

Email Marketing

Online PR

. Inbound Marketing

. Sponsored Content

Here's a quick rundown of some of the most common digital marketing tactics and the channels involved in each one.

Search Engine Optimization (SEO)

This is the process of optimizing your website to "rank" higher in search engine results pages, thereby increasing the amount of organic (or free) traffic your website receives. The channels that benefit from SEO include websites, blogs, and infographics.

There are a number of ways to approach SEO in order to generate qualified traffic to your website. These include:

On page SEO: This type of SEO focuses on all of the content that exists "on the page" when looking at a website. By researching keywords for their search volume and intent (or meaning), you can answer questions for readers and rank higher on the search engine results pages (SERPs) those questions produce.

Off page SEO: This type of SEO focuses on all of the activity that takes place "off the page" when looking to optimize your website. "What activity not on my own website could affect my ranking?" You might ask. The answer is inbound links, also known as backlinks. The number of publishers that link to you, and the relative "authority" of those publishers, affect how highly you rank for the keywords you care about. By networking with other publishers, writing guest posts on these websites (and linking back to your website), and generating external attention, you can earn the backlinks you need to move your website up on all the right SERPs.

Technical SEO: This type of SEO focuses on the backend of your website, and how your pages are coded. Image compression, structured data, and CSS file optimization are all forms of technical SEO that can **<u>increase your website's loading speed</u>** -- an important ranking factor in the eyes of search engines like Google.

Content Marketing

This term denotes the creation and promotion of content assets for the purpose of generating brand awareness, traffic growth, lead generation, and customers. The channels that can play a part in your content marketing strategy include:

Blog posts: Writing and publishing articles on a company blog helps you demonstrate your industry expertise and generates organic search traffic for your business. This ultimately gives you more opportunities to convert website visitors into leads for your sales team.

Ebooks and whitepapers: Ebooks, whitepapers, and similar long-form content helps further educate website visitors. It also allows you to exchange content for a reader's contact information, generating leads for your company and moving people through the buyer's journey.

Infographics: Sometimes, readers want you to show, not tell. Infographics are a form of visual content that helps website visitors visualize a concept you want to help them learn.

Want to learn and apply content marketing to your business? Check out HubSpot Academy's **free content marketing training resource page**.

Social Media Marketing

This practice promotes your brand and your content **on social media channels** to increase brand awareness, drive traffic, and generate leads for your business. The channels you can use in **social media marketing** include:

Facebook.

Twitter.

LinkedIn.

Instagram.

Snapchat.

Pinterest.

If you're new to social platforms, you can use tools like **HubSpot** to connect channels like LinkedIn and Facebook in one place. This way, you can easily schedule content for multiple channels at once, and monitor analytics from the platform as well.

On top of connecting social accounts for posting purposes, you can also integrate your **social media inboxes** into HubSpot, so you can get your direct messages in one place.

Pay Per Click (PPC)

PPC is a method of driving traffic to your website by paying a publisher every time your ad is clicked. One of the most common types of PPC is **Google Ads**, which allows you to pay for top slots on Google's search engine results pages at a price "per click" of the links you place. Other channels where you can use PPC include:

Paid ads on Facebook: Here, users can pay to customize a video, image post, or slideshow, which Facebook will publish to the newsfeeds of people who match your business's audience.

Twitter Ads campaigns: Here, users can pay to place a series of posts or profile badges to the news feeds of a specific audience, all dedicated to accomplish a specific goal for your business. This goal can be website traffic, more Twitter followers, tweet engagement, or even app downloads.

Sponsored Messages on LinkedIn: Here, users can pay to send messages directly to specific LinkedIn users based on their industry and background.

Affiliate Marketing

This is a type of performance-based advertising where you receive commission for promoting someone else's products or services on your website. Affiliate marketing channels include:

Hosting video ads through the **YouTube Partner Program**.

Posting affiliate links from your social media accounts.

Native Advertising

Native advertising refers to advertisements that are primarily content-led and featured on a platform alongside other, non-paid content. BuzzFeed-sponsored posts are a good example, but many people also consider social media advertising to be "native" -- **Facebook advertising** and Instagram advertising, for example.

Marketing Automation

Marketing automation refers to the software that serves to automate your basic marketing operations. Many marketing departments can automate repetitive tasks they would otherwise do manually, such as:

Email newsletters: Email automation doesn't just allow you to automatically send emails to your subscribers. It can also help you shrink and expand your contact list as needed so your newsletters are only going to the people who want to see them in their inboxes.

Social media post scheduling: If you want to grow your organization's presence on a social network, you need to post frequently. This makes manual posting a bit of an unruly process. Social media scheduling tools push your content to your social media channels for you, so you can spend more time focusing on content strategy.

Lead-nurturing workflows: Generating leads, and converting those leads into customers, can be a long process. You can automate that process by sending leads specific emails and content once they fit certain criteria, such as when they download and open an ebook.

Campaign tracking and reporting: Marketing campaigns can include a ton of different people, emails, content, webpages, phone calls, and more. Marketing automation can help you sort everything you work on by the campaign it's serving, and then track the performance of that campaign based on the progress all of these components make over time.

Email Marketing

Companies use email marketing as a way of communicating with their audiences. Email is often used to promote content, discounts and events, as well as to direct people toward the business's website. The types of emails you might send in an email marketing campaign include:

Blog subscription newsletters.

Follow-up emails to website visitors who downloaded something.

Customer welcome emails.

Holiday promotions to loyalty program members.

Tips or similar series emails for customer nurturing.

AFTERNOON SESSION

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A data frame is a table or a two-dimensional array-like structure in which each column contains values of one variable and each row contains one set of values from each column.

Following are the characteristics of a data frame.
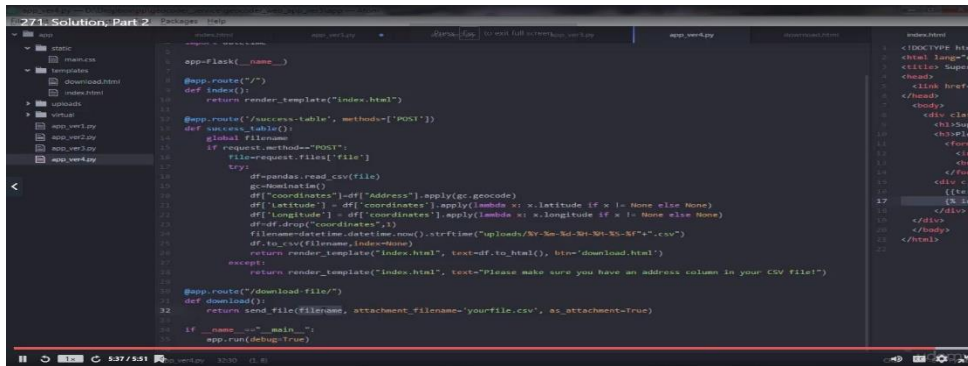
- The column names should be non-empty.

- The row names should be unique.
- The data stored in a data frame can be of numeric, factor or character type.
- Each column should contain same number of data items.

Create Data Frame

```
# Create the data frame.
emp.data <- data.frame(
   emp_id = c (1:5),
   emp_name = c("Rick","Dan","Michelle","Ryan","Gary"),
   salary = c(623.3,515.2,611.0,729.0,843.25),

   start_date = as.Date(c("2012-01-01", "2013-09-23", "2014-11-15",
"2014-05-11",
      "2015-03-27")),
   stringsAsFactors = FALSE
)
# Print the data frame.
print(emp.data)
```

When we execute the above code, it produces the following result −

```
 emp_id     emp_name     salary     start_date
1    1       Rick        623.30     2012-01-01
2    2       Dan         515.20     2013-09-23
3    3       Michelle    611.00     2014-11-15
4    4       Ryan        729.00     2014-05-11
5    5       Gary        843.25     2015-03-27
```

Get the Structure of the Data Frame

The structure of the data frame can be seen by using **str()** function.

```
# Create the data frame.
emp.data <- data.frame(
   emp_id = c (1:5),
   emp_name = c("Rick","Dan","Michelle","Ryan","Gary"),
   salary = c(623.3,515.2,611.0,729.0,843.25),

   start_date = as.Date(c("2012-01-01", "2013-09-23", "2014-11-15",
"2014-05-11",
      "2015-03-27")),
   stringsAsFactors = FALSE
)
# Get the structure of the data frame.
str(emp.data)
```

When we execute the above code, it produces the following result −

```
'data.frame':   5 obs. of  4 variables:
 $ emp_id    : int  1 2 3 4 5
 $ emp_name  : chr  "Rick" "Dan" "Michelle" "Ryan" ...
 $ salary    : num  623 515 611 729 843
```

```
 $ start_date: Date, format: "2012-01-01" "2013-09-23" "2014-11-15"
"2014-05-11" ...
```

Summary of Data in Data Frame

The statistical summary and nature of the data can be obtained by applying **summary()** function.

```
# Create the data frame.
emp.data <- data.frame(
   emp_id = c (1:5),
   emp_name = c("Rick","Dan","Michelle","Ryan","Gary"),
   salary = c(623.3,515.2,611.0,729.0,843.25),

   start_date = as.Date(c("2012-01-01", "2013-09-23", "2014-11-15",
"2014-05-11",
      "2015-03-27")),
   stringsAsFactors = FALSE
)
# Print the summary.
print(summary(emp.data))
```

When we execute the above code, it produces the following result −

```
     emp_id      emp_name              salary          start_date
 Min.   :1    Length:5           Min.   :515.2    Min.   :2012-01-01
 1st Qu.:2    Class :character   1st Qu.:611.0    1st Qu.:2013-09-23
 Median :3    Mode  :character   Median :623.3    Median :2014-05-11
 Mean   :3                       Mean   :664.4    Mean   :2014-01-14
 3rd Qu.:4                       3rd Qu.:729.0    3rd Qu.:2014-11-15
 Max.   :5                       Max.   :843.2    Max.   :2015-03-27
```

Extract Data from Data Frame

Extract specific column from a data frame using column name.

```
# Create the data frame.
emp.data <- data.frame(
   emp_id = c (1:5),
   emp_name = c("Rick","Dan","Michelle","Ryan","Gary"),
   salary = c(623.3,515.2,611.0,729.0,843.25),

   start_date = as.Date(c("2012-01-01","2013-09-23","2014-11-
15","2014-05-11",
      "2015-03-27")),
   stringsAsFactors = FALSE
)
# Extract Specific columns.
result <- data.frame(emp.data$emp_name,emp.data$salary)
print(result)
```

When we execute the above code, it produces the following result −

```
  emp.data.emp_name emp.data.salary
1              Rick          623.30
```

```
2                 Dan             515.20
3            Michelle            611.00
4                Ryan            729.00
5                Gary            843.25
```

Extract the first two rows and then all columns

```
# Create the data frame.
emp.data <- data.frame(
   emp_id = c (1:5),
   emp_name = c("Rick","Dan","Michelle","Ryan","Gary"),
   salary = c(623.3,515.2,611.0,729.0,843.25),

   start_date = as.Date(c("2012-01-01", "2013-09-23", "2014-11-15",
"2014-05-11",
      "2015-03-27")),
   stringsAsFactors = FALSE
)
# Extract first two rows.
result <- emp.data[1:2,]
print(result)
```

When we execute the above code, it produces the following result −

```
  emp_id    emp_name    salary    start_date
1      1       Rick     623.3    2012-01-01
2      2        Dan     515.2    2013-09-23
```

Extract 3rd and 5th row with 2nd and 4th column

```
# Create the data frame.
emp.data <- data.frame(
   emp_id = c (1:5),
   emp_name = c("Rick","Dan","Michelle","Ryan","Gary"),
   salary = c(623.3,515.2,611.0,729.0,843.25),

      start_date = as.Date(c("2012-01-01", "2013-09-23", "2014-11-15",
"2014-05-11",
      "2015-03-27")),
   stringsAsFactors = FALSE
)

# Extract 3rd and 5th row with 2nd and 4th column.
result <- emp.data[c(3,5),c(2,4)]
print(result)
```

When we execute the above code, it produces the following result −

```
  emp_name start_date
3 Michelle 2014-11-15
5     Gary 2015-03-27
```

Expand Data Frame

A data frame can be expanded by adding columns and rows.

Add Column

Just add the column vector using a new column name.

```
# Create the data frame.
emp.data <- data.frame(
   emp_id = c (1:5),
   emp_name = c("Rick","Dan","Michelle","Ryan","Gary"),
   salary = c(623.3,515.2,611.0,729.0,843.25),

   start_date = as.Date(c("2012-01-01", "2013-09-23", "2014-11-15",
"2014-05-11",
      "2015-03-27")),
   stringsAsFactors = FALSE
)

# Add the "dept" coulmn.
emp.data$dept <- c("IT","Operations","IT","HR","Finance")
v <- emp.data
print(v)
```

When we execute the above code, it produces the following result −

```
  emp_id    emp_name    salary    start_date       dept
1    1      Rick        623.30    2012-01-01       IT
2    2      Dan         515.20    2013-09-23       Operations
3    3      Michelle    611.00    2014-11-15       IT
4    4      Ryan        729.00    2014-05-11       HR
5    5      Gary        843.25    2015-03-27       Finance
```

Add Row

To add more rows permanently to an existing data frame, we need to bring in the new rows in the same structure as the existing data frame and use the **rbind()** function.

In the example below we create a data frame with new rows and merge it with the existing data frame to create the final data frame.

```
# Create the first data frame.
emp.data <- data.frame(
   emp_id = c (1:5),
   emp_name = c("Rick","Dan","Michelle","Ryan","Gary"),
   salary = c(623.3,515.2,611.0,729.0,843.25),

   start_date = as.Date(c("2012-01-01", "2013-09-23", "2014-11-15",
"2014-05-11",
      "2015-03-27")),
   dept = c("IT","Operations","IT","HR","Finance"),
   stringsAsFactors = FALSE
)

# Create the second data frame
emp.newdata <-       data.frame(
   emp_id = c (6:8),
   emp_name = c("Rasmi","Pranab","Tusar"),
```

```
    salary = c(578.0,722.5,632.8),
    start_date = as.Date(c("2013-05-21","2013-07-30","2014-06-17")),
    dept = c("IT","Operations","Fianance"),
    stringsAsFactors = FALSE
)

# Bind the two data frames.
emp.finaldata <- rbind(emp.data,emp.newdata)
print(emp.finaldata)
```

When we execute the above code, it produces the following result −

```
   emp_id     emp_name     salary     start_date      dept
1      1     Rick         623.30      2012-01-01      IT
2      2     Dan          515.20      2013-09-23      Operations
3      3     Michelle     611.00      2014-11-15      IT
4      4     Ryan         729.00      2014-05-11      HR
5      5     Gary         843.25      2015-03-27      Finance
6      6     Rasmi        578.00      2013-05-21      IT
7      7     Pranab       722.50      2013-07-30      Operations
8      8     Tusar        632.80      2014-06-17      Fianance
```

```python
from flask import Flask, render_template, request, send_file
from geopy.geocoders import ArcGIS

import pandas
import datetime

app=Flask(__name__)
@app.route("/")

def index():

    return render_template("index.html")


@app.route('/success-table', methods=['POST'])
def success_table():

    global filename
    if request.method=="POST":
        file=request.files['file']
        try:

            df=pandas.read_csv(file)
            gc=ArcGIS(scheme='http')

            df["coordinates"]=df["Address"].apply(gc.geocode)
            df['Latitude'] = df['coordinates'].apply(lambda x: x.latitude if
x != None else None)

            df['Longitude'] = df['coordinates'].apply(lambda x: x.longitude
if x != None else None)

            df=df.drop("coordinates",1)
filename=datetime.datetime.now().strftime("sample_files/%Y-%m-%d-%H-%M-%S-%f"
+".csv")

            df.to_csv(filename,index=None)

            return render_template("index.html", text=df.to_html(),
btn='download.html')

        except Exception as e:
            return render_template("index.html", text=str(e))


@app.route("/download-file/")
def download()
```