ITMG 100 Data Usage/Networking, Excel/Word Extra Credit (up to 25 points) DUE before exam (23 may 2017) in hard and correctly named electronic copies (must have both to receive credit)

With the large expansion of wifi networks and 4G networks and unlimited data plans, people might never really give much consideration to how much data they are using. As such, many people are probably using their devices without considering how much of a load is being placed on the network. In addition, many programmers and advertisers are embedding large amounts of code, pictures, and videos into emails and webpages which can also use a large amount of data.

Unfortunately, all this data usage has a cost. Triple R Threat Telecommunications is commissioning a study on this topic and you have an opportunity to submit a report. Listed below are the items that Triple R is interested in.

PART ONE - INTRO REPORT (up to 5 points)

First, a two-page report on the definition of data usage, how it applies to phones, tablets, computers. Successful proposals will include a breakdown of what applications consume the most data as well as how people can limit the use of their data. Triple R is also interested in how much data is used overall by all consumers, and if possible broken down by country (US, etc) and state. Triple R is not certain if these figures are calculated on a daily, weekly, monthly, or yearly basis.

PART TWO – CAPTURING DATA USAGE

MOBILE DATA USAGE WEB/APPS/TEXTS (up to 5 points)

Triple R is also interested in individual cell phone data usage. The company is aware that many of the telecommunication company (Verizon, ATT, T-Mobile) provide tools and website support for people to estimate their data usage as well as track their usage (see example screen shots below). Triple R noticed that some companies (Verizon, ATT, TMOBILE) allow people to download data to excel and some (Verizon) also produce graphs that provide a breakdown of how the data is being used (web, apps, videos). There are also some third party apps such as Network Utility, Start Usage Meter, and Onavo Count. Your task is to capture *one month of historical data usage and one week of current data (SAT thru SUN, one of each day)*. The raw data should be placed in one worksheet in excel and then duplicated in another worksheet where that data can be visually represented by tables and charts. Specifically, the company would like to see how much data is used each hour and then by the three main segments of a day (8-5 daytime work hours, 5-11 evening, and 11-8 nighttime).

EMAIL USAGE (up to 5 points)

Email data makes up quite a bit of individual and network traffic data. Triple is interested in determining if there are any trends in email data on an individual level. *Your task here is to provide a one month historical data account of your main email account usage*. The company is specifically interested in the number of messages sent and received per hour per day, the type of message (work/school, spam, marketing from companies, and family/friends), and the size of each message. To accomplish this task, you should create a template in Excel where you can count and record the data from your main email account and then be used for data analysis. Just as in Part Two, tables and charts should be used to visually represent your data.

PART THREE VISUAL PRESENTATION OF DATA USAGE (up to 10 points)

The third part [Part THREE] is to take the data from the mobile and email data collected and create a report that illustrates the how you data is being used on your phone and through your email account. Some potential items/questions to consider could include (and not limited to):

What part of the day consume the most amount of data?
What day of the week consumes the most amount of data?
What type of mobile data is being used the most?
What is the largest type of text message received?
Where there any special reasons that may have caused an increase in data usage (travel, etc)

What part of the day receives the most text messages?
What day of the week receives the most text messages?
What part of the day is the most text messages sent?
What day of the week is the most text messages sent?
Where there any special reasons that may have caused an increase in text usage (travel, special event, etc)

What is the largest type of email message received?
What part of the day receives the most email messages?
What day of the week receives the most email messages?
What part of the day is the most email messages sent?
What day of the week is the most email messages sent?
How many messages are received with attachments? What type of attachments are they?
How many messages are sent with attachments? What type of attachments are they?
Where there any special reasons that may have caused an increase in email usage (travel, special event, etc)

In terms of answering the questions you can choose through several methods to find the answers. One possibility is to turn the datasheet into a table within excel and then using table sort/filter tools to find the answers. A second possibility would be to turn the data into a pivot table and then use pivot table tools to find the answers. The third possibility would be to import the excel data into access and use query tools to find the answers.

Perhaps, the best representation for the tables and charts could be in the form of an infographic. Here is a link from a google search for examples:

https://www.google.com/search?q=infographic+examples&client=firefox-a&hs=uhl&rls=org.mozilla:en-US:official&tbm=isch&tbo=u&source=univ&sa=X&ei=rkWtUsTKCMugyQHfvYHYBA&ved=0CEoQsAQ&biw=1920&bih=923

FINAL SUBMISSION AND CONSIDERATION

Your final submission should be a printed out word document that includes the Part One Intro Report, followed by a word document that contains tables/charts of the results of your individual data analysis along with some descriptive statements. In addition to the hard copy, you will need to submit electronic copies of your word and excel files. In order to receive any consideration your files must follow naming conventions as specified by the syllabus for ITMG 100 and the email must be sent with the proper subject line as also specified by the syllabus.

Some Visual Examples

Data
Usage is Estimated ❓   🟠 Line Usage   🟡 Shared Usage

Total Usage	0.422 GB remaining	**0.122 GB**
		of 2.000 GB used

View FreeBee Data

View Data Utilization

MANAGE DATA ALERTS >

Minutes
Usage is Estimated ❓

Total Usage	Unlimited	**608 min**
		of Unlimited

Messages
Usage is Estimated ❓

Total Usage	Unlimited	**349 msg**
		of Unlimited

Categories

Category	Percent
❓ Web & Apps	88 %
❓ Social Media & Networking	7 %
❓ Communication & Device Services	2 %
❓ Video	1 %

Web & Apps   [Close]

Category	Percent
❓ Technology	68 %
❓ Portals & Search	7 %
❓ News	6 %
❓ Lifestyle & Interests	5 %
❓ Media & Entertainment	1 %
❓ Business Services	1 %

Line Data of Mobile Data Usage
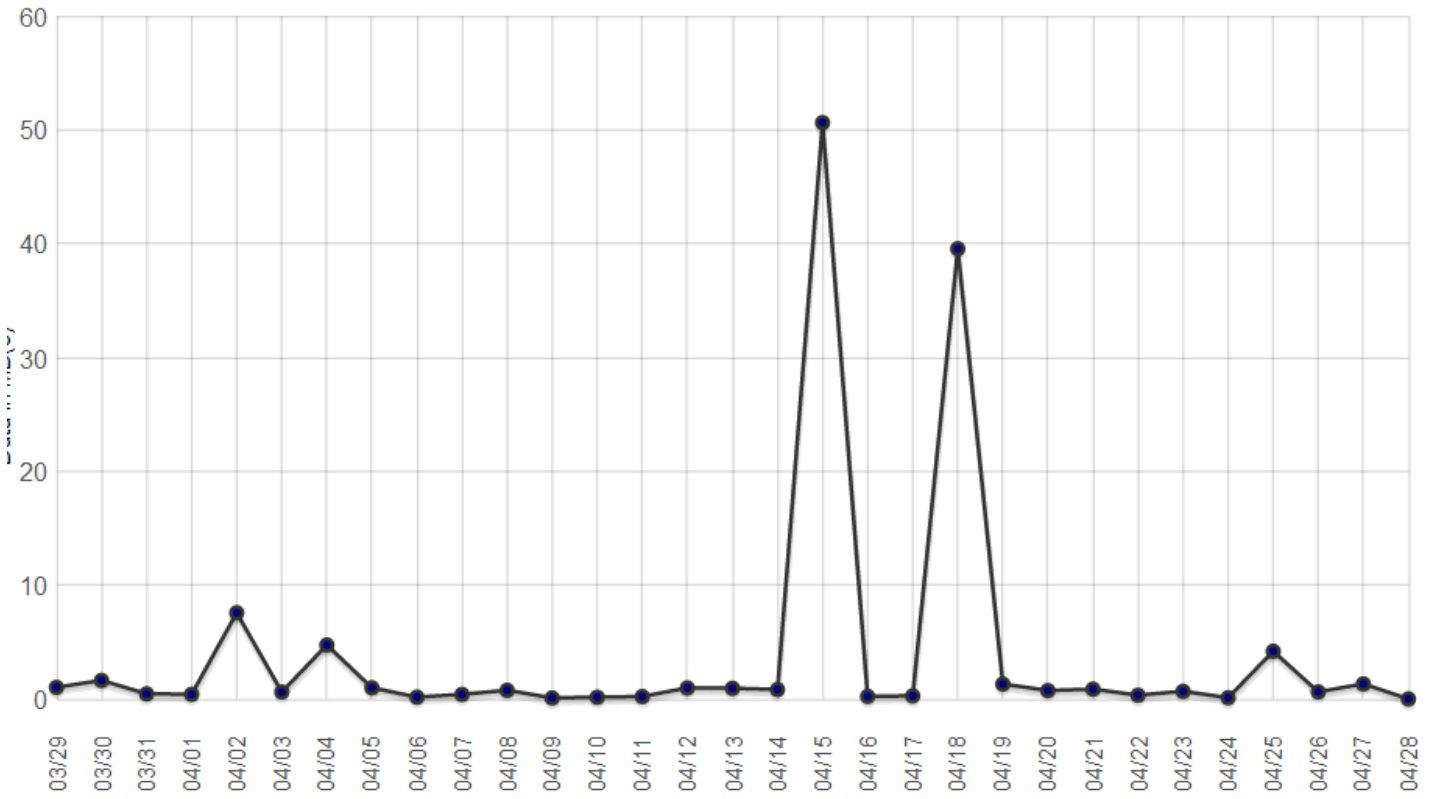
Excel Breakdown of Mobile Usage

| Date	Day	Time	Unbilled Data Usage in Kilobytes(KB)	Unbilled Data Usage in Megabytes(MB)	Unbilled Data Usage in Gigabytes(GB)
4/27/2016	WED	10:23 AM	207.7	0.2	0.000198116
4/27/2016	WED	10:22 AM	21	0.02	0.000020044
4/27/2016	WED	6:48 AM	461.3	0.45	0.000439918
4/27/2016	WED	12:48 AM	23.2	0.02	0.000022119
4/26/2016	TUE	6:48 PM	126.2	0.12	0.000120398
4/26/2016	TUE	12:48 PM	405	0.4	0.00038623
4/26/2016	TUE	6:49 AM	100.2	0.1	0.000095598
4/26/2016	TUE	3:50 AM	0.3	0	0.00000025
4/26/2016	TUE	12:10 AM	14.2	0.01	0.000013526
4/25/2016	MON	6:40 PM	117.7	0.11	0.000112222
4/25/2016	MON	6:12 PM	3826.6	3.74	0.003649304
4/25/2016	MON	5:53 PM	6.2	0.01	0.000005886
4/25/2016	MON	4:56 PM	242.1	0.24	0.00023088
4/25/2016	MON	10:56 AM	191.6	0.19	0.000182766
4/25/2016	MON	7:16 AM	12.5	0.01	0.000011935
4/25/2016	MON	4:23 AM	0.3	0	0.00000025
4/25/2016	MON	1:46 AM	0.3	0	0.00000025
4/24/2016	SUN	5:03 PM	0.7	0	0.000000626
4/24/2016	SUN	11:03 AM	0.8	0	0.000000805
4/24/2016	SUN	7:27 AM	118.6	0.12	0.000113107
4/24/2016	SUN	3:47 AM	0.3	0	0.00000025
4/23/2016	SAT	6:08 PM	291.1	0.28	0.000277616
4/23/2016	SAT	12:47 PM	0.8	0	0.000000719
4/23/2016	SAT	6:48 AM	411.3	0.4	0.000392273
4/23/2016	SAT	12:48 AM	0.7	0	0.000000626
4/22/2016	FRI	6:48 PM	100.4	0.1	0.000095794
4/22/2016	FRI	3:38 PM	0.2	0	0.000000156
4/22/2016	FRI	9:38 AM	240.1	0.23	0.00022894
4/21/2016	THR	10:12 PM	121	0.12	0.000115376
4/21/2016	THR	4:13 PM	180.1	0.18	0.00017179
4/21/2016	THR	10:13 AM	597.9	0.58	0.000570192
4/21/2016	THR	7:45 AM	0.4	0	0.000000406
4/21/2016	THR	4:43 AM	0.3	0	0.00000025
4/21/2016	THR	1:41 AM	0.3	0	0.00000025
4/20/2016	WED	11:13 PM	0.3	0	0.00000025
4/20/2016	WED	3:26 PM	452	0.44	0.000431038
4/20/2016	WED	9:43 AM	305.1	0.3	0.000291006
4/20/2016	WED	3:43 AM	21.6	0.02	0.000020643
4/19/2016	TUE	9:43 PM	76.1	0.07	0.000072544
4/19/2016	TUE	5:33 PM	247	0.24	0.000235591
4/19/2016	TUE	11:33 AM	476.7	0.47	0.00045458
4/19/2016	TUE	5:34 AM	581.8	0.57	0.000554808
4/18/2016	MON	11:34 PM	22.9	0.02	0.00002186
4/18/2016	MON	3:53 PM	128.6	0.13	0.000122658
4/18/2016	MON	9:53 AM	41258.5	40.29	0.03934718
4/18/2016	MON	3:53 AM	63.9	0.06	0.000060905
4/17/2016	SUN	9:54 PM	84	0.08	0.00008009
4/17/2016	SUN	6:43 PM	0.8	0	0.00000076
4/17/2016	SUN	12:44 PM	145.1	0.14	0.000138363
4/17/2016	SUN	9:02 AM	51.7	0.05	0.000049301
4/17/2016	SUN	5:41 AM	0.3	0	0.00000025
4/17/2016	SUN	2:58 AM	0.3	0	0.00000025
4/17/2016	SUN	12:11 AM	0.3	0	0.00000025
4/16/2016	SAT	9:46 PM	4.6	0	0.000004353
4/16/2016	SAT	3:06 PM	40	0.04	0.000038127
4/16/2016	SAT	12:03 PM	204.4	0.2	0.000194933
4/16/2016	SAT	6:04 AM	0.7	0	0.000000626
4/16/2016	SAT	12:04 AM	0.7	0	0.000000626
4/15/2016	FRI	6:04 PM	47.1	0.05	0.00004488
4/15/2016	FRI	12:04 PM	53021.2	51.78	0.050564919
4/15/2016	FRI	9:41 AM	0.3	0	0.00000025
4/15/2016	FRI	3:05 AM	23.9	0.02	0.000022755
4/14/2016	THR	9:06 PM	155.7	0.15	0.000148479
4/14/2016	THR	3:41 PM	328.4	0.32	0.000313166
4/14/2016	THR	9:41 AM	316.2	0.31	0.000301547
4/14/2016	THR	7:32 AM	76.3	0.07	0.000072735
4/14/2016	THR	1:33 AM	1.3	0	0.000001229

TEXT MESSAGE USAGE
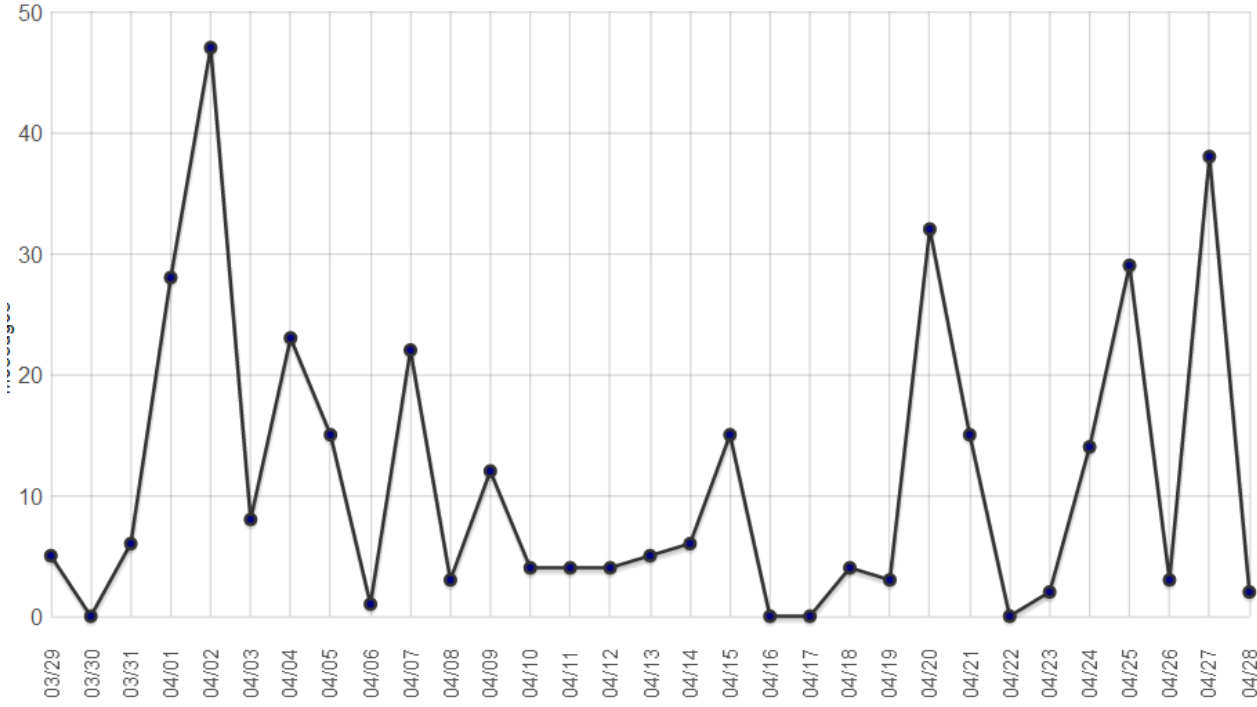
Texts ❓	Picture & Video ❓	Mobile to Mobile ❓	Mobile to Mobile Picture & Video ❓	Total
260	90	0	0	350

MOBILE TEXT USAGE

Date	DAY	Time	Direction	Message Type
4/28/2016	THR	9:00 AM	Sent	Text
4/28/2016	THR	8:29 AM	Received	Text
4/27/2016	WED	6:44 PM	Received	Text
4/27/2016	WED	6:43 PM	Received	Text
4/27/2016	WED	6:43 PM	Sent	Text
4/27/2016	WED	6:38 PM	Received	Text
4/27/2016	WED	6:37 PM	Sent	Text
4/27/2016	WED	6:34 PM	Received	Text
4/27/2016	WED	6:34 PM	Received	Text
4/27/2016	WED	6:34 PM	Received	Text
4/27/2016	WED	6:34 PM	Sent	Picture/Video
4/27/2016	WED	6:34 PM	Received	Picture/Video
4/27/2016	WED	6:33 PM	Sent	Text
4/27/2016	WED	6:21 PM	Received	Picture/Video
4/27/2016	WED	6:21 PM	Received	Picture/Video
4/27/2016	WED	6:17 PM	Sent	Text
4/27/2016	WED	6:16 PM	Sent	Text
4/27/2016	WED	5:28 PM	Received	Text
4/27/2016	WED	4:45 PM	Received	Text
4/27/2016	WED	4:34 PM	Sent	Text
4/27/2016	WED	4:33 PM	Received	Picture/Video
4/27/2016	WED	4:33 PM	Received	Picture/Video
4/27/2016	WED	4:16 PM	Sent	Text
4/27/2016	WED	4:14 PM	Sent	Text
4/27/2016	WED	4:12 PM	Received	Text
4/27/2016	WED	3:51 PM	Sent	Text
4/27/2016	WED	1:20 PM	Sent	Text
4/27/2016	WED	1:08 PM	Received	Text
4/27/2016	WED	11:38 AM	Received	Text
4/27/2016	WED	11:37 AM	Received	Text
4/27/2016	WED	10:27 AM	Sent	Text
4/27/2016	WED	8:48 AM	Received	Text
4/27/2016	WED	8:45 AM	Sent	Text
4/27/2016	WED	8:15 AM	Received	Text
4/27/2016	WED	8:14 AM	Received	Text
4/27/2016	WED	8:14 AM	Received	Text
4/27/2016	WED	7:46 AM	Sent	Text
4/27/2016	WED	8:57 PM	Received	Picture/Video
4/27/2016	WED	7:16 PM	Sent	Picture/Video
4/27/2016	WED	7:14 PM	Sent	Picture/Video

EMAIL MESSAGE USAGE

▲ Date: Today

	Sender	Subject	Size		Received
✉	**McGraw-Hill Education**	**Promote consistency of treatment and optimal outcomes with this white ...**	**52 KB**		**Thu 4/28/2016 9:37 AM**
✉	Lori Stevenson	Honors Convocation 2016	9 KB		Thu 4/28/2016 9:31 AM
✉	Creativity Daily	Cannes Simulates Terrorist Attack Ahead of Major Festivals	99 KB		Thu 4/28/2016 9:17 AM
✉	F5 Networks	Upcoming Events from F5 Networks	55 KB		Thu 4/28/2016 9:15 AM
✉	Candice Williams	Programming languages explained - Follow-up	31 KB		Thu 4/28/2016 8:42 AM
✉	Ace Rewards	Exclusive Coupon: Let's Celebrate Loyalty Day!	55 KB		Thu 4/28/2016 8:35 AM
✉	APC by Schneider Electric	12 ways to counter rising costs and stuck budgets	48 KB		Thu 4/28/2016 8:31 AM
✉	membership@aisnet.org	Association for Information Systems (AIS) - Member Profile Update	27 KB		Thu 4/28/2016 8:18 AM
✉	Crain's San Diego	Top Headlines for Thursday, April 28, 2016	129 KB		Thu 4/28/2016 8:11 AM
✉	IDERA	Free Tool - Migrate SQL User Permissions with Ease!	74 KB		Thu 4/28/2016 7:15 AM
✉	Interop Las Vegas 2016	Less than 48 Hours to Register	51 KB		Thu 4/28/2016 7:09 AM
✉	TigerDirectB2B	HP i7 Mini PC $549	27" HP IPS Monitor $179	HP i5 ProBook $479 + More	73 KB		Thu 4/28/2016 7:09 AM
✉	Daily SDBJ.com eNews	SDBJ.com Daily eNews	53 KB		Thu 4/28/2016 7:07 AM
✉	Hunter Steakhouse	Celebrate Mother's Day Hunter style	33 KB		Thu 4/28/2016 7:04 AM
✉	Dr. Gary Weitzman, San Diego H...	Deadline extended - double your gift!	53 KB		Thu 4/28/2016 7:02 AM
✉	Daniel Sullivan	3 Days Left For $1,000 Cash Back	55 KB		Thu 4/28/2016 7:02 AM
✉	Inside-ERP	New Data Center Options for Increasing Your Private and Hybrid Cloud A...	35 KB		Thu 4/28/2016 6:59 AM
✉ 🔗	ijdrresearch_3@yahoo.in	monthly/CALL FOR PAPER - April -2016/[SJIF Impact Factor: 4.25]	345 KB		Thu 4/28/2016 6:28 AM
✉	Dark Reading Daily	Pro-ISIS Hacking Groups Growing, Unifying, But Still Unskilled	86 KB		Thu 4/28/2016 6:19 AM
✉	IRNewsLink Daily	Facebook's earnings blow past expectations	144 KB		Thu 4/28/2016 6:10 AM
✉	The 3rd Corner - OB	OB Carr Wine Dinner with Owners Ryan & Jessica Carr	50 KB		Thu 4/28/2016 6:09 AM
✉	NFLShop.com	Who will be the latest addition to the roster?	67 KB		Thu 4/28/2016 6:08 AM
✉	The San Diego Union-Tribune	The latest issue of the San Diego Union-Tribune is now available online	71 KB		Thu 4/28/2016 6:05 AM
✉	Staples	Here's your Thursday deal for a discount on ink	See our weekly ad	174 KB		Thu 4/28/2016 5:48 AM
✉	Computerworld First Look	My year with the Apple Watch: Good-looking tech, still flawed	134 KB		Thu 4/28/2016 5:18 AM
✉	Ad Age Daily	Facebook Revenue Tops Estimates on Mobile, Video Ad Boom	67 KB		Thu 4/28/2016 4:03 AM
✉	Marketing EDGE E|Update	Spring Semester: Challenges and Honors, Oh, Yeah!	73 KB		Thu 4/28/2016 4:01 AM
✉	ESPN Fantasy News	The top 5 pitchers for Thursday, and a new No. 1 in the rankings	65 KB		Thu 4/28/2016 4:01 AM

DAY	DATE	TIME	TYPE	SENDER	FILE SIZE
THR	4/26/2016	9:37 AM	WORK- MKTG	McGraw Hill	52
THR	4/26/2016	9:31 AM	WORK - INFO	USD	9
THR	4/26/2016	9:15AM	LISTERVE	COMM ARTS	99
THR	4/26/2016	8:42 AM	SPAM	F5	55