

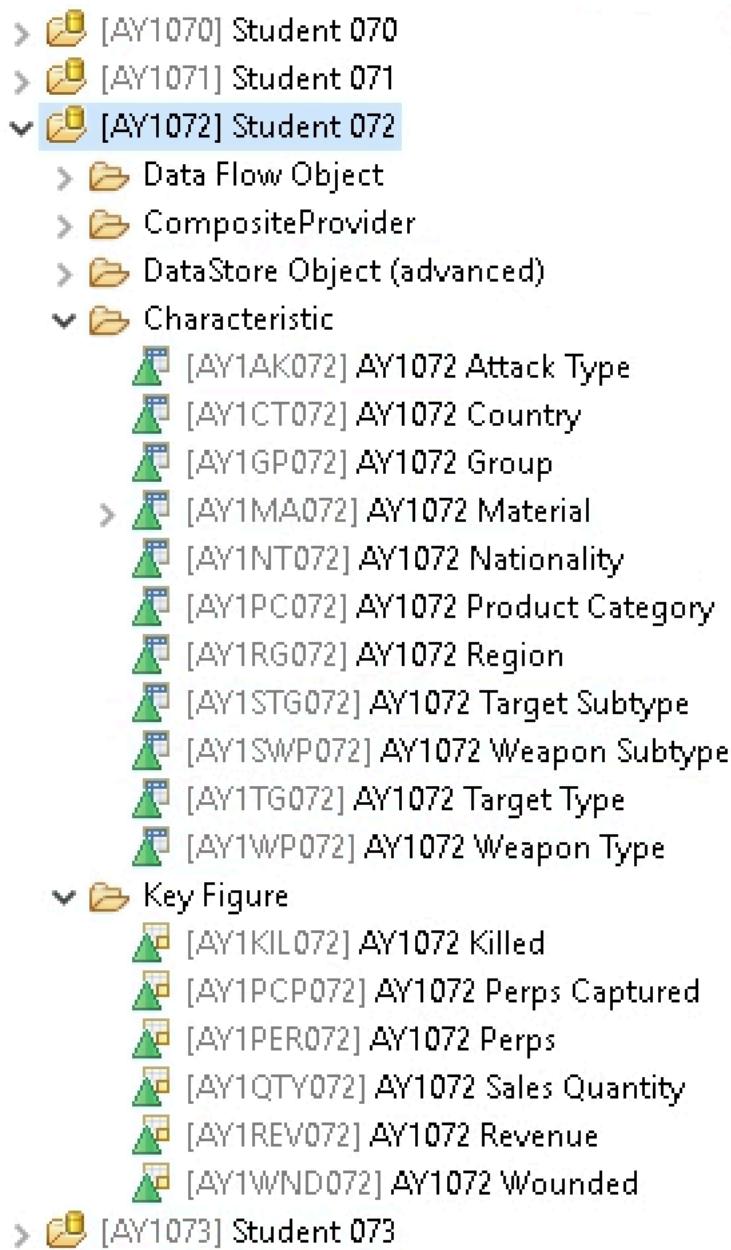
Name: _____ Yanyu Xu _____

Final Project Answer Sheet

100 points

Creating a Data Warehouse/Query Creation

- 1) Please provide a screenshot of your activated characteristics and key figures for the dataset. (13 points)



- 2) Please provide a screenshot of your activated DataSources for the dataset. (9 points)

[ZAY1070 (PC_FILE)] Student 070

[ZAY1071 (PC_FILE)] Student 071

[ZAY1072 (PC_FILE)] Student 072

 [AY1DSAK072 (PC_FILE)] AY1072 Attack Type Master Data

 [AY1DSCT072 (PC_FILE)] AY1072 Country Master Data

 [AY1DSDE072 (PC_FILE)] AY1 Data Source Sale Data DE 072

 [AY1DSGP072 (PC_FILE)] AY1072 Group Master Data

 [AY1DSMD072 (PC_FILE)] AY1072 Material Master Data

 [AY1DSNT072 (PC_FILE)] AY1072 Nationality Master Data

 [AY1DSRG072 (PC_FILE)] AY1072 Region Master Data

 [AY1DSSTG072 (PC_FILE)] AY1072 Target Subtype Master Da

 [AY1DSSWP072 (PC_FILE)] AY1072 Weapon Subtype Master

 [AY1DSTG072 (PC_FILE)] AY1072 Target Type Master Data

 [AY1DSUS072 (PC_FILE)] AY1 Data Source Sale Data US 072

 [AY1DSWP072 (PC_FILE)] AY1072 Weapon Type Master Data

[ZAY1073 (PC_FILE)] Student 073

[ZAY1074 (PC_FILE)] Student 074

[ZAY1075 (PC_FILE)] Student 075

[ZAY1076 (PC_FILE)] Student 076

- 3) Please provide a screenshot of your activated Data Flow Objects for the dataset. (9 points)

[AY1070] Student 070
 [AY1071] Student 071
 [AY1072] Student 072
 ✓ Data Flow Object

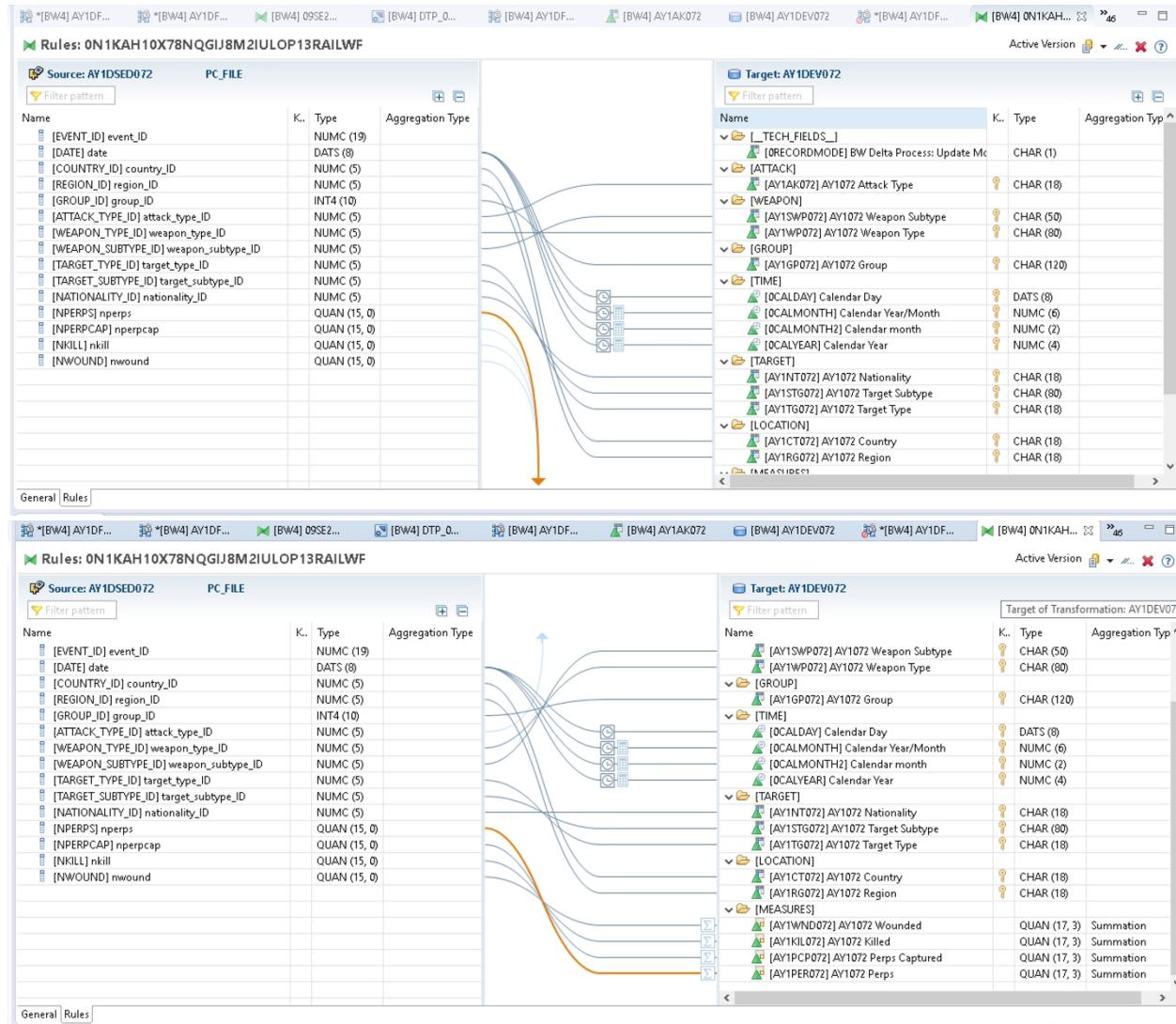
- [AY1DFAK072] AY1072 Attack Type Data Flow
- [AY1DFCT072] AY1072 Country Data Flow
- [AY1DFGP072] AY1072 Group Data Flow
- [AY1DFMD072] AY1072 Data Flow Master Data
- [AY1DFNT072] AY1072 Nationality Data Flow
- [AY1DFRG072] AY1072 Region Data Flow
- [AY1DFSD072] AY1072 Data Flow Sales Data.
- [AY1DFSTG072] AY1072 Target Subtype Data Flow
- [AY1DFSWP072] AY1072 Weapon Subtype Data Flow
- [AY1DFTG072] AY1072 Target Type Data Flow
- [AY1DFWP072] AY1072 Weapon Type Data Flow

- > CompositeProvider
- > DataStore Object (advanced)
- > Characteristic
- > Key Figure
- [AY1073] Student 073
- [AY1074] Student 074

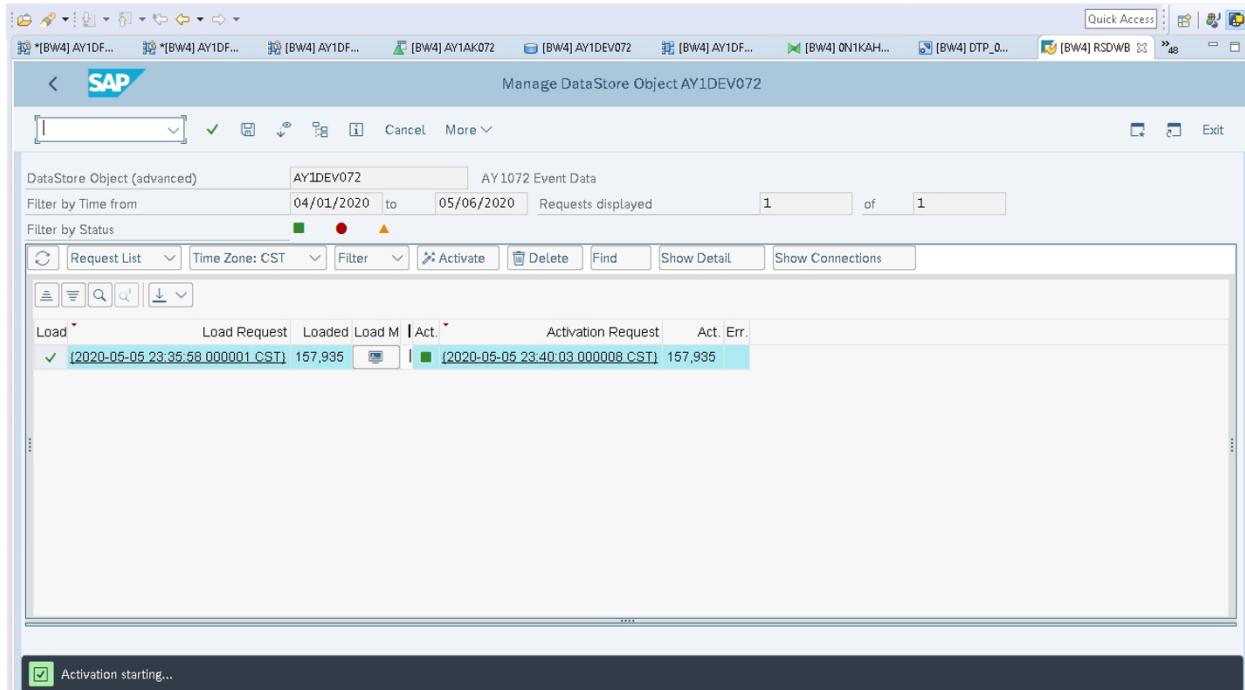
4) Please provide a screenshot of your Data Preview. (8 points)

A screenshot of the SAP BW Data Preview interface. The top navigation bar shows "Active Version" and various icons. Below the navigation is a "Fields" table with columns: Field, Key, T..., Data Type, Length, Field Type, InfoObject... The table lists numerous fields such as event_ID, date, country_ID, group_ID, attack_type_ID, weapon_type_ID, subtype_ID, target_type_ID, target_subtype_ID, nationality_ID, nperps, npercap, and nkill. To the right of the table are several tabs: General, InfoObject Template, Data Type, Technical Properties, Conversion Properties, and Updates Available. The "General" tab shows the name as NWOUND and the description as nwound. The "Data Type" tab shows the data type as QUAN, precision as 15, and scale as 0. The "Technical Properties" tab shows unit/currency as EA and fixed unit/currency as EA. The "Conversion Properties" tab shows the format as Internal and conversion routine as " ". The "Updates Available" tab indicates there are updates available for software version 0018, with a link to review and install.

- 5) Please provide a screenshot of the Rules tab of your transformation. Make sure your screenshot shows the connections between the key figures fields. (4 points)



- 6) Please provide a screenshot of your single activated request. (3 points)



- 7) Please provide a screenshot of your BW Reporting Preview with Key Figures in the Columns box and Country in the Rows box. (6 points)

Output: AY1CPED072

Active Version

Provider Fields

Filter pattern

View Field	Associated Object
[ATTACK] ATTACK	AY1AK072
[GROUP] GROUP	AY1GP072
[LOCATION] LOCATION	AY1CT072
[MEASURES] MEASURES	AY1WND072, AY1KL072, AY1PCP072, AY1PER072
[TARGET] TARGET	AY1NT072, AY1STG072, AY1TG072

General

Field Type: Characteristic
Name: AY1CT072
Description: AY1072 Country

Association

With: InfoObject AY1CT072
Usage of System-Wide Unique Name:
Direct Usage of Associated Object by Name: AY1CT072

Data Type

Conversion Properties

Conversion Routine: ALPHA

Characteristic-Specific Properties

Constant Value:
Authorization Relevance: Field is evaluated in authorization checks using associated object

General | Scenario | Output

Properties Problems BW Reporting Preview Data Preview for DataSource

BW4] AY1CPED072 - AY1072 CP Event Data

Columns

Key Figures

Key Figures	AY1072 Killed	AY1072 Perps Capture	AY1072 Perps	AY1072 Wounded
AY1072 Country	39,384 EA	-6,115 EA	-895,685 EA	44,277 EA
Afghanistan	39,384 EA	-6,115 EA	-895,685 EA	44,277 EA
Albania	42 EA	9 EA	-1,052 EA	126 EA
Algeria	11,066 EA	-3,057 EA	-86,679 EA	9,150 EA
Andorra	0 EA	0 EA	0 EA	0 EA
Angola	3,043 EA	-190 EA	400 EA	2,455 EA
Antigua and Barbuda	0 EA	0 EA	0 EA	0 EA
Argentina	490 EA	-494 EA	1,550 EA	755 EA
Armenia	37 EA	20 EA	-455 EA	71 EA
Australia	23 EA	-587 EA	-3,384 EA	113 EA
Austria	30 EA	-591 EA	-1,679 EA	126 EA
Azerbaijan	258 EA	-183 EA	-52 EA	187 EA
Bahamas	1 EA	0 EA	-96 EA	0 EA
Bahrain	44 EA	-624 EA	-13,929 EA	189 EA

Rows

AY1072 Country

Free

Calendar Day, AY1072 Attack Type, AY1072 Group, AY1072 Nationality

- 8) Please provide a screenshot of your BW Reporting Preview after making the above changes. (4 points)

The screenshot shows the SAP BusinessObjects Web Intelligence (BW) reporting interface. At the top, there's a navigation bar with several tabs and icons. Below it, the title bar says "Filter: AY1QRY072 - AY1072 Final Project Query".

Properties Panel:

- Filter: Fixed Values:** Shows nodes like [AY1CT072] AY1072 Country, [34] Burundi, [44] China, and [OCALYEAR] Calendar Year with years from 2007 to 2013.
- Filter: Default Values:** Shows nodes like [AY1TG072] AY1072 Target Type, [AY1WP072] AY1072 Weapon Type, etc.
- General:** Technical Name: OCALYEAR, Description: Calendar Year.
- Value Output Format:** Display As: Key, Text Output Format: Standard.
- Sorting:** Sorting Attribute: As in Query, Sort By: As in Query, Sort Direction: As in Query.
- Result Output Format:** Show Result Rows: Always, Cumulate Values: checked.

Data Grid:

AY1072 Country	Calendar Year	Key Figures			
		AY1072 Wounded	AY1072 Killed	AY1072 Perps Capture	AY1072 Perps
Burundi	2007	2 EA	3 EA	0 EA	0 EA
Burundi	2008	46 EA	28 EA	0 EA	-592 EA
Burundi	2010	55 EA	14 EA	0 EA	-2,771 EA
Burundi	2011	30 EA	47 EA	0 EA	-580 EA
Burundi	2012	22 EA	6 EA	0 EA	-296 EA
Burundi	2013	12 EA	5 EA	0 EA	-84 EA
Burundi	2014	1 EA	4 EA	0 EA	-495 EA
Burundi	2015	220 EA	223 EA	10 EA	-8,660 EA
Burundi	2016	213 EA	74 EA	-181 EA	-6,184 EA
Burundi	2017	107 EA	60 EA	0 EA	-1,477 EA

Bottom status bar: Read-Only | BW4, 900, bw4, AY1-072, EN

Business Analyst Questions

Screenshots should be provided for all questions.

- 1) Provide screenshot(s) of the members of your Country and Calendar Year characteristics. (3 points)

Analysis

View for: AY1072 Final Project Query

Find:

Data Source

- AY1072 Final Project Query
 - + Measures
 - + AY1072 Attack Type
 - AY1072 Country
 - Burundi
 - China
 - + AY1072 Group
 - + AY1072 Region
 - + AY1072 Target Type
 - + AY1072 Weapon Type
 - + Calendar Day
 - + Calendar month
 - Calendar Year
 - Members
 - 2007
 - 2008
 - 2009
 - 2010
 - 2011
 - 2012
 - 2013
 - 2014
 - 2015
 - 2016
 - More Members Available
 - + Attributes
- + Calendar Year/Month

Columns

- + Measures

Rows

- + AY1072 Country
- Calendar Year
 - All Members Selected

Background Filter

Analysis | Information | Components | Design Rules | Comments

- 2) What is the total number of captured perpetrators for each of your assigned countries? (4 points)

The screenshot displays two Power BI reports side-by-side. Both reports are based on the same data source, "AY1072 Final Project Query [DS_2]".

Top Report:

A	B	C	D	E	F	G	H	I	J
AY1072 Country	Calendar Year	AY1072 Perps Captu	EA						
Burundi	2015		10						

Bottom Report:

A	B	C	D	E	F	G	H	I	J
AY1072 Country	Calendar Year	AY1072 Perps Captu	EA						
Burundi	2011		5						
Burundi	2012		6						
Burundi	2013		2						
Burundi	2014		18						
Burundi	2015		4						
Burundi	2016		4						
Burundi	2017		4						
Total			43						

For Burundi, there are 10 captured perpetrators. For China, there are 43 captured perpetrators.

- 3) In each of your assigned countries, which attack type are you most likely to survive assuming you get wounded? (6 points)

The screenshot displays two Power BI reports side-by-side. Both reports are based on the same data source, "AY1072 Final Project Query [DS_2]".

Top Report:

A	B	C	D	E	F	G	H	I
AY1072 Country	AY1072 Attack Type	AY1072 Wounded	AY1072 Killed	#Casualties	Wounded ratio	Killed Ratio		
China	Armed Assault	406	592	1,000	0.408	0.592		
China	Assassination	4	12	16	0.25	0.75		
China	Bombing/Explosion	510	193	703	0.725462304	0.274537696		
China	Facility/Infrastructure Attack	12	3	15	0.8	0.2		
China	Hijacking	15	9	24	0.625	0.375		
China	Hostage Taking (Kidnapping)	0	0	0	#DIV/0!	#DIV/0!		
China	Unarmed Assault	67	2	69	0.971014493	0.028985507		
China	Unknown	0	1	1	0	1		
Overall Result		1,016	812	1,828	0.555798687	0.444201313		
Overall Result		1,016	812	1,828	0.555798687	0.444201313		

Bottom Report:

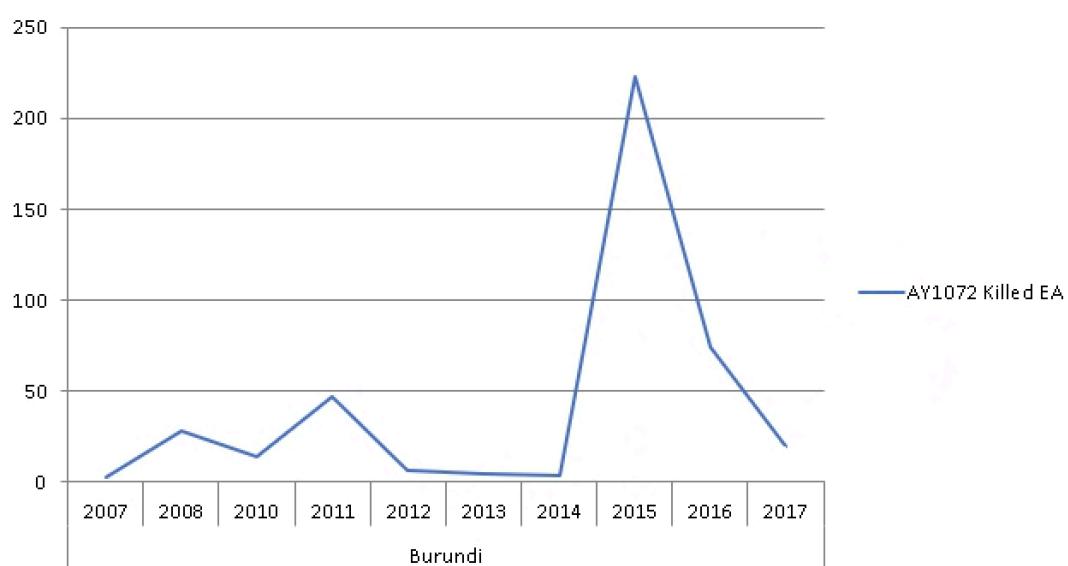
A	B	C	D	E	F	G
AY1072 Country	AY1072 Attack Type	AY1072 Wounded	AY1072 Killed	#Casualties	Wounded ratio	Killed Ratio
Burundi	Armed Assault		119	239	358	0.332402235
Burundi	Assassination		13	41	54	0.240740741
Burundi	Bombing/Explosion		582	122	704	0.826704545
Burundi	Facility/Infrastructure Attack		2	3	5	0.4
Burundi	Hostage Taking (Barricade Incident)		0	3	3	0
Burundi	Hostage Taking (Kidnapping)		1	9	10	0.1
Burundi	Unknown		11	7	18	0.611111111
Overall Result		728	424	1,152	0.631944444	0.368055556
Overall Result		728	424	1,152	0.631944444	0.368055556
				0	#DIV/0!	#DIV/0!

Because this is the ratio of wounded and killed and we want to know the survive ratio, so the lowest wounded ratio and killed ratio will be the highest survive rate. However, we should consider killed ratio more because wounded means we are still alive, but killed could not be survived.

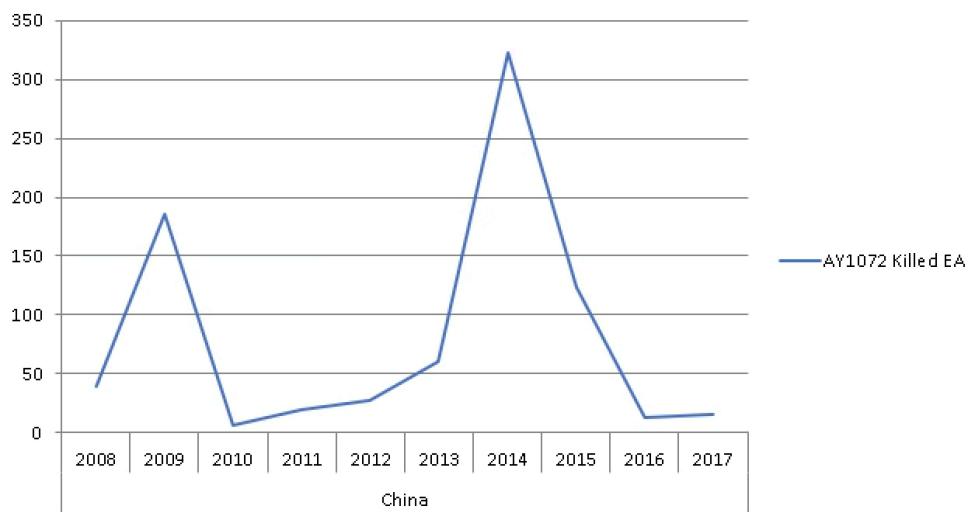
Comparatively, I will say in China, Unarmed Assault has the highest survival rate because 97% of people only got wounded and only 2% of people get killed (not survived). Other countries all have a greater than 20% of killed rate, which means less than 80% of people could be survived. In Burundi, Bombing/Explosion has a higher survival rate because it has the lowest death ratio with 17.3% and 82.67% wounded people can be survived. Other ones all have a highest than 35% of killed ratio and lower survival rate.

- 4) Insert a line graph showing the number of deaths from terrorist attacks over time (years) in your assigned countries. (5 points)

AY1072 Killed EA



AY1072 Killed EA



- 5) Which Target Type in each of your assigned countries is most likely to be attacked? (4 points)

A	B	C	D	E
		AY1072 Wounded	AY1072 Killed	Total
AY1072 Country	AY1072 Target Type	EA	EA	
3 Burundi	Business	226	56	282
4	Educational Institution	2	0	2
5	Government (Diplomatic)	0	1	1
6	Government (General)	67	32	99
7	Journalists & Media	0	1	1
8	Military	65	147	212
9	Police	74	68	142
10	Private Citizens & Property	235	86	321
11	Religious Figures/Institutions	9	3	12
12	Transportation	18	4	22
13	Unknown	4	2	6
14	Utilities	0	0	0
15	Violent Political Party	28	24	52
16	Result	728	424	1,152
17	Overall Result	728	424	1,152

In Burundi, Private Citizens&Property is most likely to be attacked.

A	B	C	D	E
		AY1072 Wounded	AY1072 Killed	Total
AY1072 Country	AY1072 Target Type	EA	EA	
3 China	Airports & Aircraft	13	0	13
4	Business	95	116	211
5	Educational Institution	65	8	73
6	Government (General)	30	70	100
7	Journalists & Media	1	0	1
8	Military	4	12	16
9	Police	144	192	336
10	Private Citizens & Property	368	359	727
11	Religious Figures/Institutions	0	1	1
12	Tourists	0	1	1
13	Transportation	296	53	349
14	Unknown	0	0	0
15	Result	1,016	812	1,828
16	Overall Result	1,016	812	1,828

In China, Private Citizens&Property is most likely to be attacked.

- 6) For each of your countries, provide a screenshot showing the % wounded for each weapon type.

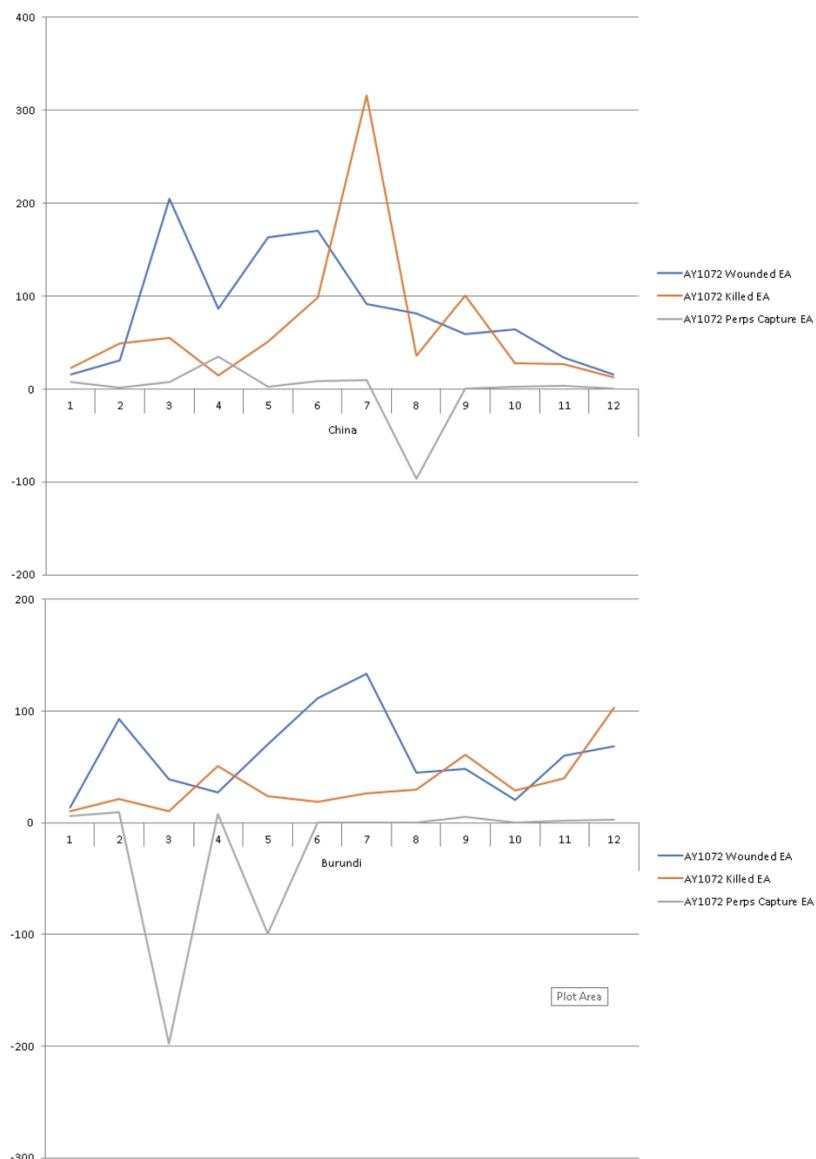
A	B	C	D
		AY1072 Wounded	Percentage Contribution: AY1072 Wounded
AY1072 Country	AY1072 Weapon Type	EA	%
3 Burundi	Explosives	612	84.066
4	Firearms	104	14.286
5	Incendiary	1	0.137
6	Melee	0	0.000
7	Unknown	11	1.511
8	Result	728	41.743
9 China	Chemical	54	5.315
10	Explosives	582	57.283
11	Firearms	0	0.000
12	Incendiary	118	11.614
13	Melee	240	23.622
14	Unknown	0	0.000
15	Vehicle (not to include vehicle-borne explosives, i.e., car)	22	2.165
16	Result	1,016	58.257
17	Overall Result	1,744	100.000

- 7) What is the total number of casualties (# killed + # wounded) in each of your assigned countries?
(4 points)

	A	B	C	D
1		AY1072 Wounded	AY1072 Killed	Total
2	AY1072 Country	EA	EA	
3	Burundi	728	424	1,152
4	China	1,016	812	1,828
5	Overall Result	1,744	1,236	2,980

For Burundi, there is 1,152 casualties. For China, there is 1,828 casualties.

- 8) What are the 3 safest months to visit if you are trying to avoid terrorist attacks (4 points)



My definition of “safest” base on the number of wounded, killed and captured perps. From the line graph provided above, we can see that in China, the months that have lowest number of killed and

wounded number are November, December and January. In Burundi, the months that have lowest number of killed and wounded number are January, March and October.