

EXAMPLE PROMPT FOR **COT-INFORMATION RETRIEVAL-EXTRACTION** SCENARIO –

CATEGORY - Country

Perform the following tasks –

Task 1: For the question provided with the timeline, retrieve the relevant tables from the timeline that shall be used to answer the question. The task is to extract the appropriate tables rather than generate the answer to the question.

Task 2: From the tables retrieved in task 1, retrieve the relevant keys and values that would be used to answer the question.

Task 3: Answer the question using the retrieved keys from Task 2. The answer should be concise, within 5 to 10 words. Further, answer the question based solely on the information presented in the retrieved key(s) without referencing any external data or information.

Here's an example for your reference –

Timeline: {

"2007-12-31T23:47:10Z": {"common_name": "Guyana", "leader_title1": "President",
"leader_name1": "Bharrat Jagdeo", "leader_title2": "Prime Minister", "leader_name2": "Sam
Hinds", "GDP_PPP": "\$3.489 billion", "GDP_PPP_rank": "157th", "GDP_PPP_per_capita":
"\$4,612", "GDP_PPP_per_capita_rank": "106th", "HDI": "0.720", "HDI_rank": "107th"},

"2012-12-31T06:04:27Z": {"common_name": "Guyana", "leader_title1": "President",
"leader_name1": "Donald Ramotar", "leader_title2": "Prime Minister", "leader_name2":
"Sam Hinds", "GDP_PPP": "\$5.783 billion", "GDP_PPP_per_capita": "\$7,465",
"GDP_nominal": "\$2.480 billion", "GDP_nominal_per_capita": "\$3,202", "HDI_rank":
"107th"}, "

"2016-12-31T21:20:59Z": {"common_name": "Guyana", "leader_title1": "President",
"leader_name1": "David Granger", "leader_title2": "Prime Minister", "leader_name2":
"Moses Nagamootoo", "GDP_PPP": "\$6.155 billion", "GDP_PPP_per_capita": "\$7,938",
"GDP_nominal": "\$2.788 billion", "GDP_nominal_per_capita": "\$3,596", "Gini": "44.5",
"HDI": "0.636", "HDI_rank": "124th"},

"2021-12-31T03:46:57Z": {"common_name": "Guyana", "leader_title1": "President",
"leader_name1": "Irfaan Ali", "leader_title2": "Prime Minister", "leader_name2": "Mark
Phillips", "GDP_PPP": "\$18.357 billion", "GDP_PPP_rank": "152nd", "GDP_PPP_per_capita":
"\$23,258", "GDP_PPP_per_capita_rank": "64th", "GDP_nominal": "\$7.255 billion",
"GDP_nominal_rank": "153rd", "GDP_nominal_per_capita": "\$9,192",
"GDP_nominal_per_capita_rank": "74th", "Gini": "44.6", "HDI": "0.682", "HDI_rank":
"122nd"}}}

question 1: Name the person(s) who served as the President when Sam Hinds was the Prime Minister?

Task 1 Answer: To answer this question, we will retrieve all the tables where Sam Hinds was the Prime Minister. According to the timeline, Sam Hinds was the Prime Minister in two tables at timestamps - 2007-12-31T23:47:10Z and 2012-12-31T06:04:27Z. Hence, we will retrieve these two tables.

Task 2 Answer: From the retrieved tables in task 1, we extract keys whose value is 'President'. For this question key would be 'leader_title1'. Since, we need to answer which individual(s) assumed this position, we also extract 'leader_name1' keys from all the tables.

Task 3 Answer: From the retrieved keys in task 2, the President of Guyana was - Bharrat Jagdeo and Donald Ramotar.

question 2: How long did David Granger served as President of Guyana?(Answer in the number of days.) (Assume that tenure for a position starts when the person appears in the timeline in that role and ends when either the timeline ends, or someone else replaces him.)

Task 1 Answer: David Granger became the President on 31st December 2016 (timestamp - 2016-12-31T21:20:59Z) and was replaced by Irfaan Ali on 31st December 2021 (timestamp - 2021-12-31T03:46:57Z). Hence, we retrieve these two tables.

Task 2 Answer: For this question, we do not need specific key from the extracted table. We just require the timestamps of the extracted tables in task 1.

Task 3 Answer: Number of days from 31st December 2016 to 31st December 2021 is 1826 days. Hence, the answer is 1826 days.

question 3: What was the percentage increase in Guyana's GDP PPP per capita from 2007 to 2012?

Task 1 Answer: To calculate this, we need tables from 2007 and 2012. We will retrieve the last tables from 2007 (i.e. 2007-12-31T23:47:10Z) and 2012 (i.e. 2012-12-31T06:04:27Z).

Task 2 Answer: Since we need to calculate percentage increase in GDP PPP per capita, we will retrieve values from 'GDP_PPP_per_capita' keys from the extracted tables.

Task 3 Answer: According to the retrieved keys in task 2, GDP PPP per capita in 2007 was \$4,612 and in 2012 was \$7,465. Therefore, the percentage increase is $((7465 - 4612) / 4612) * 100 = 61.8\%$.

Now, perform the tasks for the following timeline(premise) and question -

Premise: {

"2012-12-31T17:26:53Z": {"common_name": "Paraguay", "leader_title1": "President", "leader_name1": "Fernando Lugo", "leader_title2": "Vice President", "leader_name2": "Federico Franco", "GDP_PPP": "\$35.346 billion", "GDP_PPP_per_capita": "\$5,412", "GDP_nominal": "\$21.236 billion", "GDP_nominal_per_capita": "\$3,252", "HDI_rank": "96th", "Gini": "50.8"},

"2013-12-31T20:45:31Z": {"common_name": "Paraguay", "leader_title1": "President", "leader_name1": "Horacio Cartes", "leader_title2": "Vice President", "leader_name2": "Juan Afara", "GDP_PPP": "\$53.123 billion", "GDP_PPP_per_capita": "\$7,326", "GDP_nominal":

"\$38.254 billion", "GDP_nominal_per_capita": "\$5,053", "Gini": "48.2", "HDI": "0.699",
"HDI_rank": "111th"},

"2017-12-31T05:05:42Z": {"common_name": "Paraguay", "leader_title1": "President",
"leader_name1": "Horacio Cartes", "leader_title2": "Vice President", "leader_name2": "Juan
Afa", "GDP_PPP": "\$68.005 billion", "GDP_PPP_rank": "100th", "GDP_PPP_per_capita":
"\$9,779", "GDP_PPP_per_capita_rank": "107th", "GDP_nominal": "\$28.743 billion",
"GDP_nominal_rank": "99th", "GDP_nominal_per_capita": "\$4,133",
"GDP_nominal_per_capita_rank": "109th", "Gini": "51.7", "HDI": "0.693", "HDI_rank":
"110th"},

"2018-12-31T13:51:22Z": {"common_name": "Paraguay", "leader_title1": "President",
"leader_name1": "Mario Abdo Ben\u00e9dez", "leader_title2": "Vice President",
"leader_name2": "Hugo Vel\u00e1zquez", "leader_title3": "Senate President",
"leader_name3": "Fernando Lugo", "GDP_PPP": "\$95.011 billion", "GDP_PPP_rank": "88th",
"GDP_PPP_per_capita": "\$13,471", "GDP_PPP_per_capita_rank": "96th", "GDP_nominal":
"\$41.851 billion", "GDP_nominal_rank": "94th", "GDP_nominal_per_capita": "\$5,933",
"GDP_nominal_per_capita_rank": "94th", "Gini": "47.9", "HDI": "0.702", "HDI_rank": "110th"},

"2019-12-31T10:24:34Z": {"common_name": "Paraguay", "leader_title1": "President",
"leader_name1": "Mario Abdo Ben\u00e9dez", "leader_title2": "Vice President",
"leader_name2": "Hugo Vel\u00e1zquez", "GDP_PPP": "\$101.075 billion", "GDP_PPP_rank":
"88th", "GDP_PPP_per_capita": "\$14,131", "GDP_PPP_per_capita_rank": "96th",
"GDP_nominal": "\$44.557 billion", "GDP_nominal_rank": "94th",
"GDP_nominal_per_capita": "\$6,229", "GDP_nominal_per_capita_rank": "94th", "Gini":
"47.9", "HDI": "0.702", "HDI_rank": "110th"},

"2021-12-31T21:25:35Z": {"common_name": "Paraguay", "leader_title1": "President",
"leader_name1": "Mario Abdo Ben\u00e9dez", "leader_title2": "Vice President",
"leader_name2": "Hugo Vel\u00e1zquez", "GDP_PPP": "\$101.075 billion", "GDP_PPP_rank":
"90th", "GDP_PPP_per_capita": "\$15,030", "GDP_PPP_per_capita_rank": "96th",
"GDP_nominal": "\$44.557 billion", "GDP_nominal_rank": "94th",
"GDP_nominal_per_capita": "\$6,230", "GDP_nominal_per_capita_rank": "94th", "Gini":
"46.2", "HDI": "0.728", "HDI_rank": "103rd"},

"2022-12-31T15:10:36Z": {"common_name": "Paraguay", "leader_title1": "President",
"leader_name1": "Mario Abdo Ben\u00e9dez", "leader_title2": "Vice President",
"leader_name2": "Hugo Vel\u00e1zquez", "GDP_PPP": "\$108.2 billion", "GDP_PPP_rank":
"96th", "GDP_PPP_per_capita": "\$15,030", "GDP_PPP_per_capita_rank": "96th",
"GDP_nominal": "\$41.8 billion", "GDP_nominal_rank": "98th", "GDP_nominal_per_capita":
"\$6,230", "GDP_nominal_per_capita_rank": "94th", "Gini": "43.5", "HDI": "0.717",
"HDI_rank": "105rd"},

"2023-12-31T16:54:17Z": {"common_name": "Paraguay", "leader_title1": "President",
"leader_name1": "Mario Abdo Ben\u00e9ditez", "leader_title2": "Vice President",
"leader_name2": "Hugo Vel\u00e1zquez", "GDP_PPP": "\$101.075 billion", "GDP_PPP_rank":
"90th", "GDP_PPP_per_capita": "\$15,030", "GDP_PPP_per_capita_rank": "96th",
"GDP_nominal": "\$44.557 billion", "GDP_nominal_rank": "94th",
"GDP_nominal_per_capita": "\$6,230", "GDP_nominal_per_capita_rank": "94th", "Gini":
"43.5", "HDI": "0.728", "HDI_rank": "103rd"}}

Question: Who was the President when Vice President was Hugo Velázquez and Senate President was Fernando Lugo?

Provide answers for task 1, task 2, and task 3 separately. Also, give a final answer based on the reasoning in task 3.

Task 1 Answer:

Task 2 Answer:

Task 3 Answer:

Final Answer: