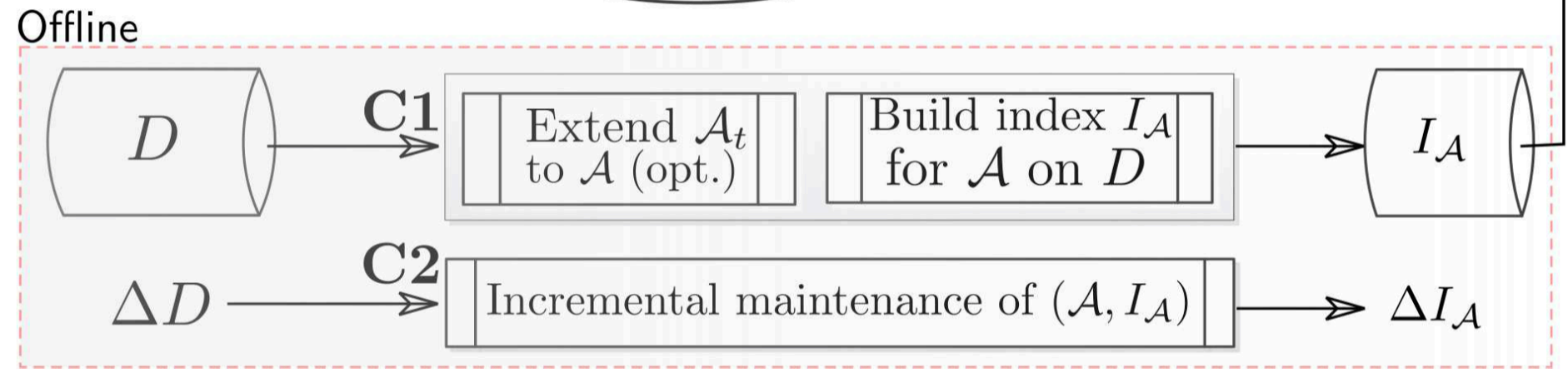
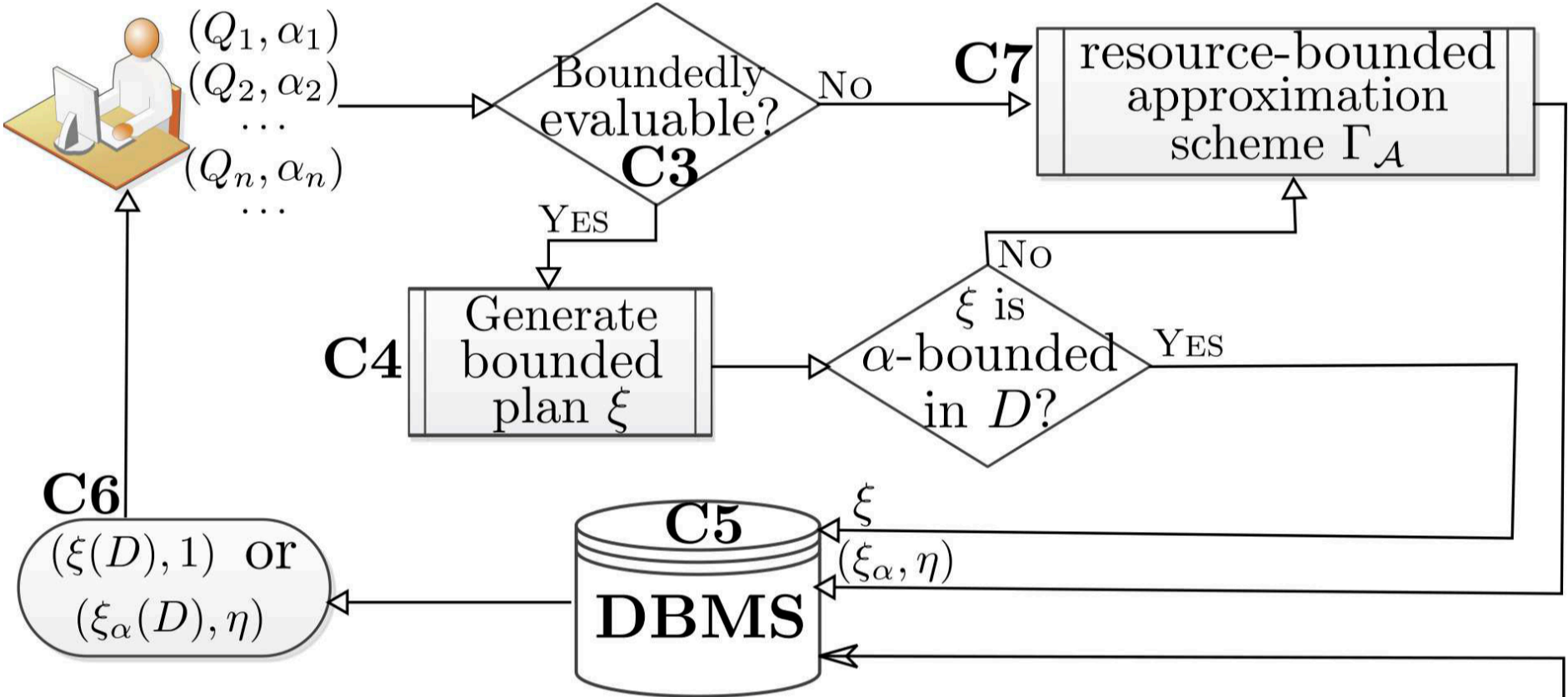




BEEAS^[7]**WORKFLOW**



- ▶ Can be built on top of any RDBMS (*e.g.*, MySQL, Postgres, ...)
- ▶ Providing legacy RDBMS with resource-bounded query evaluation

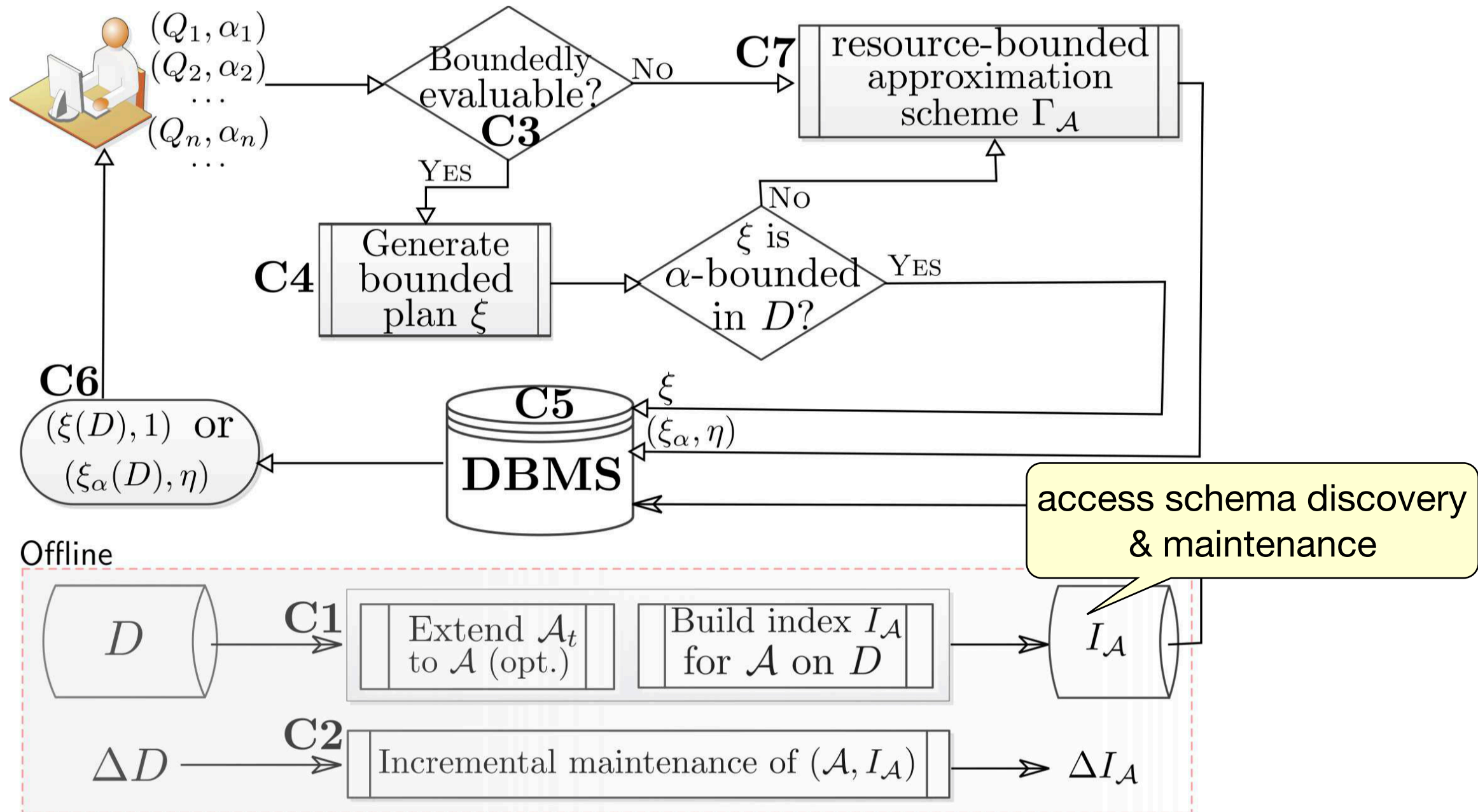
[7] Y. Cao, W. Fan, Y. Wang, T. Yuan, Y. Chen: BEAS: Bounded Evaluation of SQL Queries, SIGMOD 2017 (demo)

Plug in BEAS and play with big data

*provide small business with an
immediate capacity of big data analytics*

access schema discovery
& maintenance

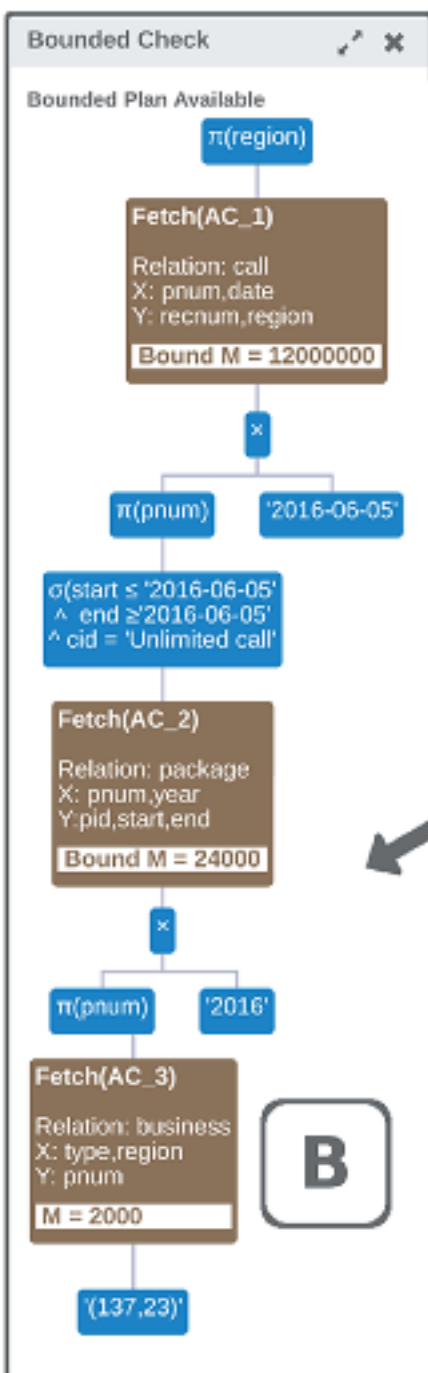
BEAS^[7] Workflow



- Can be built on top of any RDBMS (e.g.

provide small business with an immediate capacity of big data analytics

Plug in BEAS and play with big data



BEAS Demo Home Query Analysis Access Schema

127.0.0.1:8080/queryExecution/

Dataset & Access Schema Config **A**

dataset: TLC-20 scale factor: 20 attributes: 285 size: 224.58GB
benchmark: TLC relations: 12 tuples: 2,220,000,194 access constraints: 35

select dataset select scale factor browse dataset schema browse access schema

Query Input

user input/built-in select ☒

built-in query Q1 budget 12000000

*supported mode: exact/approximate
*supported system: BEAS/PostgreSQL/MySQL/MariaDB

check boundedness optimize mode exact system BEAS execute

Access Schema Management

Display Update Incremental Maintenance Discover

dataset select TLC-20 storage limit 300MB

Query Load

upload query load queryload.txt

Objective Criteria

index size ☒ performance ☐ bounded coverage ☒ criteria combination linear

discover & show **D**

Access Schema Browse

Add Delete Update Select

access schema TLC-AS-1 **E**

<input checked="" type="checkbox"/>	name	relation	x	y	n
<input checked="" type="checkbox"/>	AC_1	call	pnum,date	recnum,region	500
<input checked="" type="checkbox"/>	AC_2	package	pnum,year	pid,start,end	12
<input checked="" type="checkbox"/>	AC_3	business	type,region	pnum	2000

confirm

Execute

Task Overview:
#start time: 17:24:07
#finish time: 17:24:08
#execution time: 96.31ms

Task Resource Usage:

CPU usage (%) Memory usage (%)

performance analysis **C**

Result Overview:
#tuples: 97
#attributes: 1

Result Relation Table:

#	region
6	Capital District, New York
7	Central New York
8	Westchester County, New York

Showing 9 rows per page 1 2 ... 33

export result as *.csv