**Demand background**

* Edgenesis demo, fast query user data

|  |  |
| --- | --- |
| strategy | * The data of the day is put into variables * Day dimension data is stored in memory * Monthly data is stored in distributed cache or Go-cache |
| Backend server | ptonghao |
| QA | ptonghao |

**Functions overview**

* Virtual thermometer: current temperature
* Virtual robot arm: Let the former postion
* Virtual microplate reader: current on/off state

Data Usage:

* View current data at any time
* Keep track of data from the past day
* Check data from the past month at any time

**Functional process**

* Query data flow chart:

查询数据

Y

查询变量

The current data

N

Y

查询内存

Day level data

N

Y

查询cache

Month level data

N

查询DB

返回数据

**Store design**

**Database table design**

* Table structure omitted...

**Redis storage design**

* Go-cache Stores monthly data

**The interface list**

* Interface: HTTP: 127.0.0.1:8888 / query
* Request mode: POST
* Content-Type: application/x-www-form-urlencoded
* Parameter Description:

|  |  |
| --- | --- |
| parameter | instructions |
| product | Product type, thermometer: T, mechanical arm: P, enzyme marker: PR |
| dim | Query dimensions: current: current, yesterday: day, last month: month |
| begin\_time | Start time stamp |
| end\_time | End time stamp |

**External dependencies**

* Three virtual appliances and apis
* shifu

**dot**

There is no

**Test plan**

* Access interface
* Call the unilateral

**Online program**

The final on-line scheme generally does not need to be filled in. If small flow, tangent flow and so on are needed, it needs to be emphasized

**Estimated working hours & scheduling**

**Estimate the working hours**

Rough estimate of development time and manpower according to the above technical scheme

* Front end: no
* Back end: 2D 1 person @ptonghao

**scheduling**

Summarize the working hours of all parties and make the final schedule determined by PM

**The risk point**

* When the day level memory data is updated at 0 o 'clock every day, the request will be called to DB
* When monthly cached data is updated at 0:00 on the first day of each month, the request will be made to DB

**Review TODO in detail**

Todo and Deadline left after risk technical review, etc

* Database not designed
* The device data is all mock