
Rest here

Designing REST

For services

For client

รูปแบบ request / response จะเป็นแบบไหน?
XML, JSON, SOAP, etc.

ท้ายสุดจะเกิดเอกสารของ API ซึ่งต้องเกิดก่อนสร้าง ไม่ใช่หลัง

RESTFul

POST : Add data

GET : Retrieve data

DELETE : Delete data

PUT : Update data

HTTP Code

การ design REST API ต้องรู้ HTTP code และต้อง return ให้ clear

Code	Name	Description
200	OK	Everything is working
201	Created	New resource has been created

https://en.wikipedia.org/wiki/List_of_HTTP_status_codes

HTTP Code

Code	Name	Description
301	Moved Permanently	
302	Found	Temporary redirect
304	Not Modified	The client can use cached

https://en.wikipedia.org/wiki/List_of_HTTP_status_codes

HTTP Code

Code	Name	Description
400	Bad Request	Everything is working
401	Unauthorized	New resource has been created
403	Not Modified	The client can use cached data
404	Not found	There is no resource behind the URI
422	Unprocessable Entity	

https://en.wikipedia.org/wiki/List_of_HTTP_status_codes

HTTP Code

Code	Name
500	Internal Server Error
502	Bad Gateway
503	Service Unavailable

https://en.wikipedia.org/wiki/List_of_HTTP_status_codes

HTTP Return Code มี 2 ศาสนา ไม่มี standard
1. return 200 ตลอด error อยู่ใน body
2. return code ให้ตรงตามความหมาย

response มี 3 ส่วน
1. Header
2. Body
3. Footer - ใช้น้อย

ใช้ระบบไหนก็ได้ แต่ให้เหมือนกันทั้งระบบ

Example

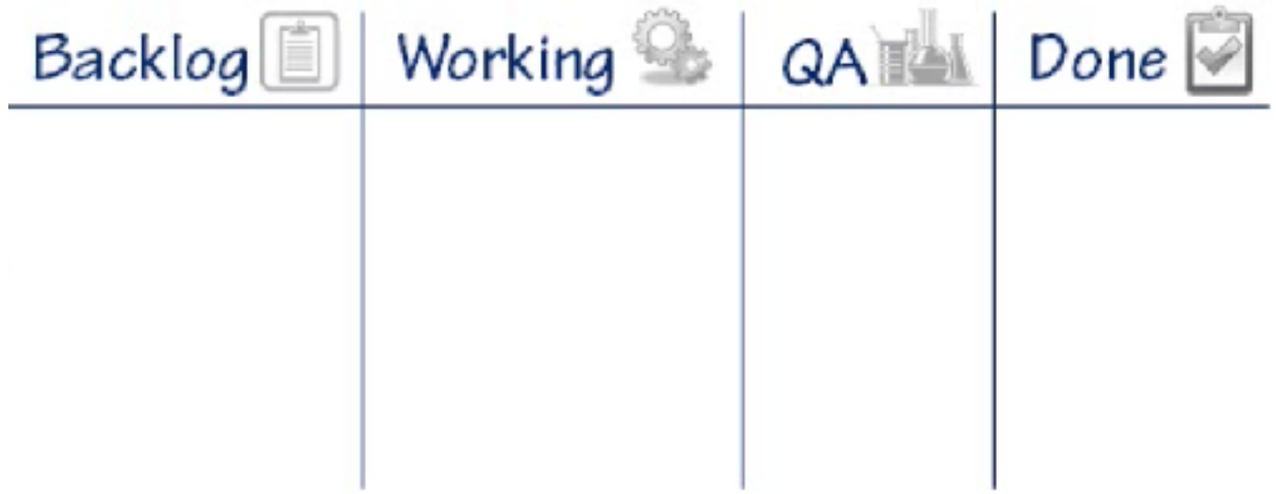
Bug tracking

Workshop Requirement

Bug

Bug board

Fixed stages เท่านี ไม่เปลียน



Bug tracking

Stories	To Do	In Progress	Testing	Done
This is a sample text. Replace it with your own text.	This is a sample text. Replace it with your own text. This is a sample text. Replace it with your own text. This is a sample text. Replace it with your own text. This is a sample text. Replace it with your own text.	This is a sample text. This is a sample text. This is a sample text.	This is a sample text. This is a sample text. This is a sample text.	This is a sample text. Replace it with your own text. This is a sample text. Replace it with your own text.
This is a sample text. Replace it with your own text.	This is a sample text. This is a sample text. This is a sample text. This is a sample text.	This is a sample text. This is a sample text. Replace it with your own.	This is a sample text. This is a sample text.	This is a sample text. Replace it with your own text.

Let’s start to design service

Step to design service

List of **requirements**

Identify the **state transitions**

Identify the **resources**

Design the **media types** JSON

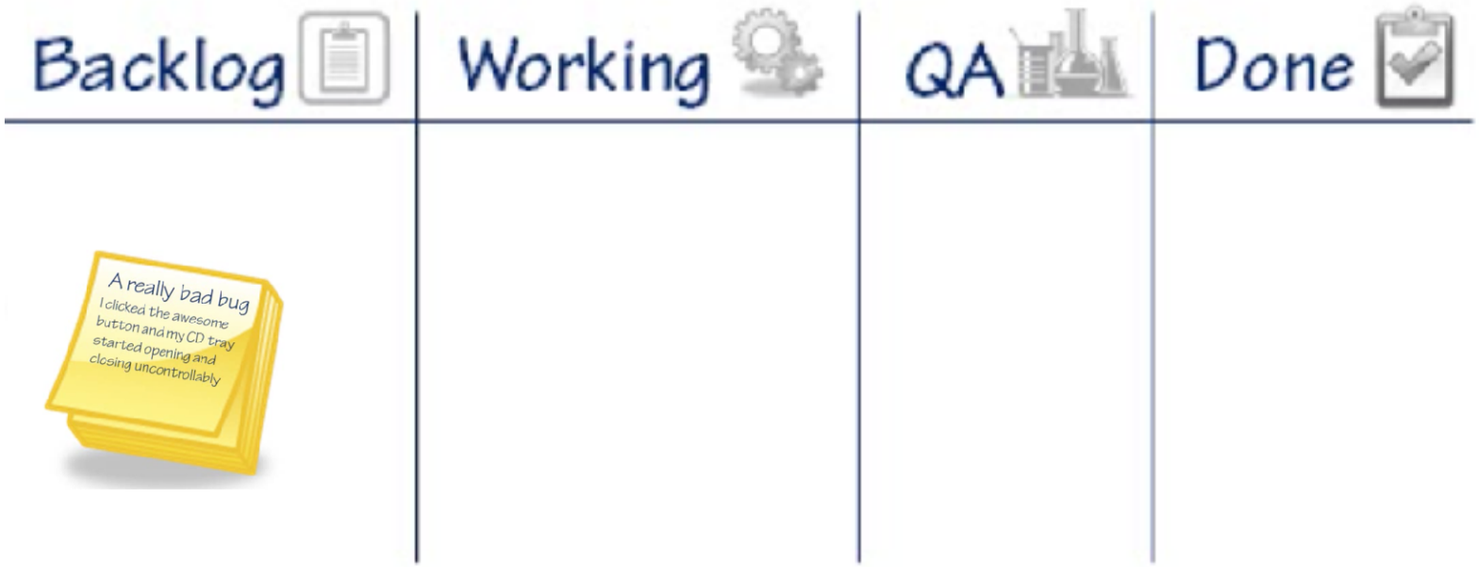
1. Requirements

Bugs in each workflow states

1. Backlog
2. Working
3. QA/Testing
4. Done

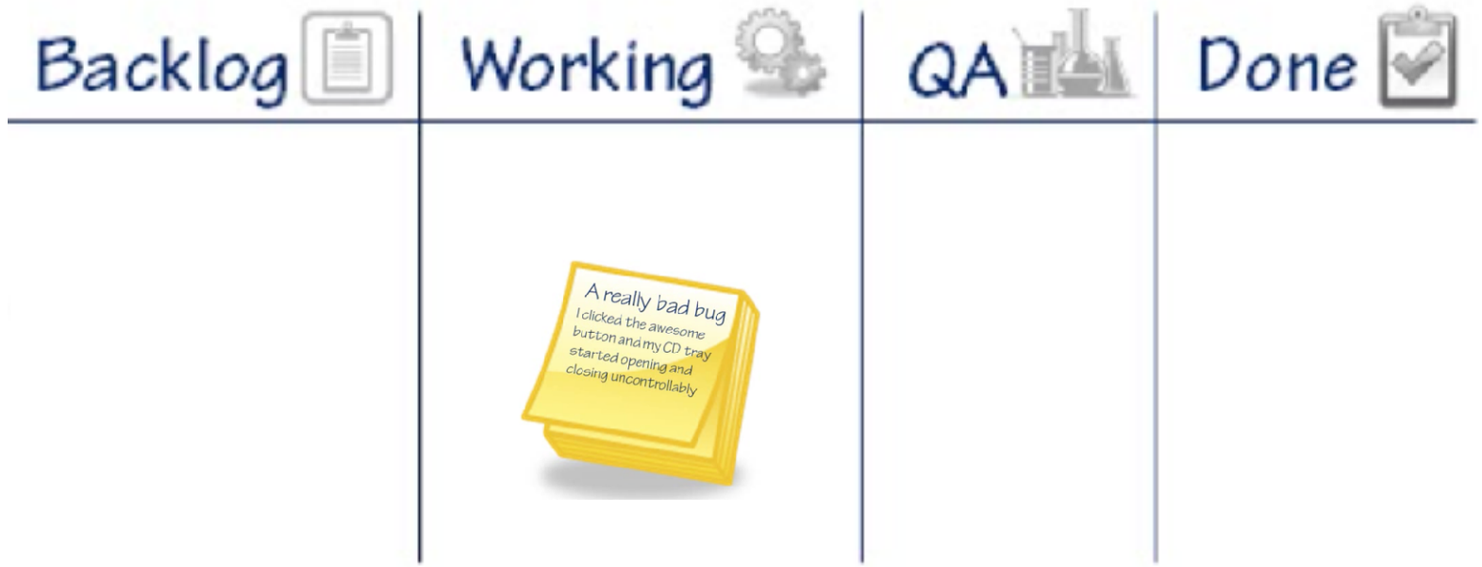
1. Requirements

Add a new bug to the backlog



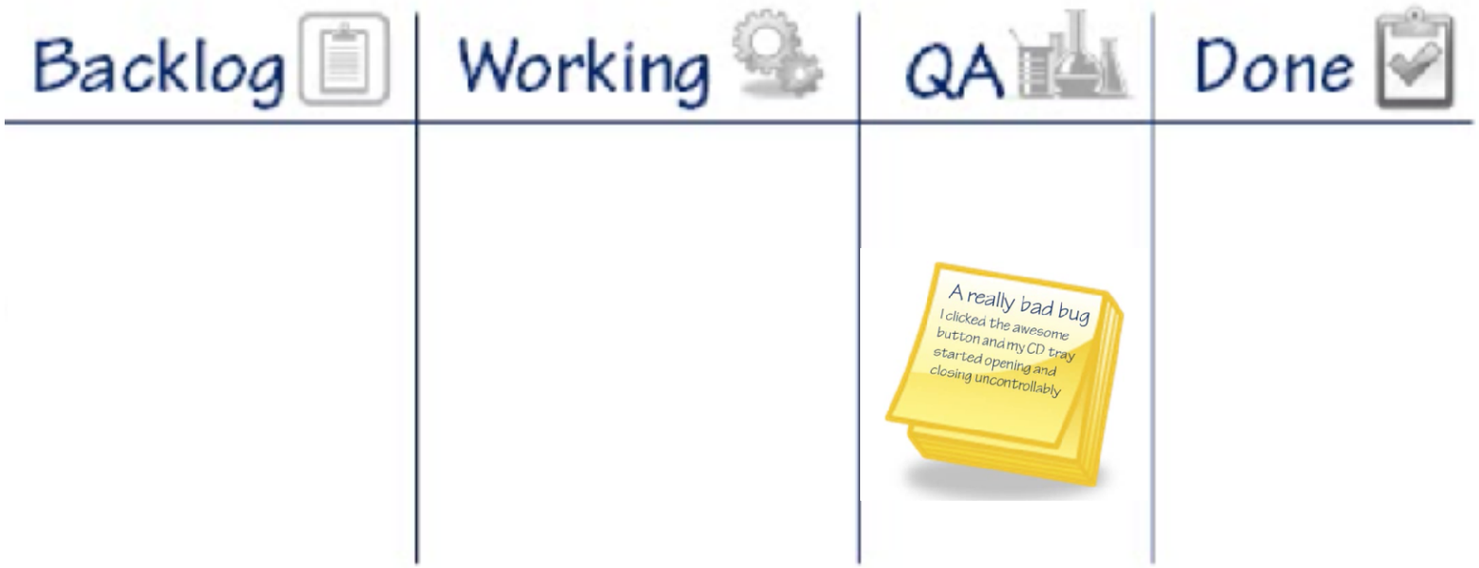
1. Requirements

Move a bug to other state



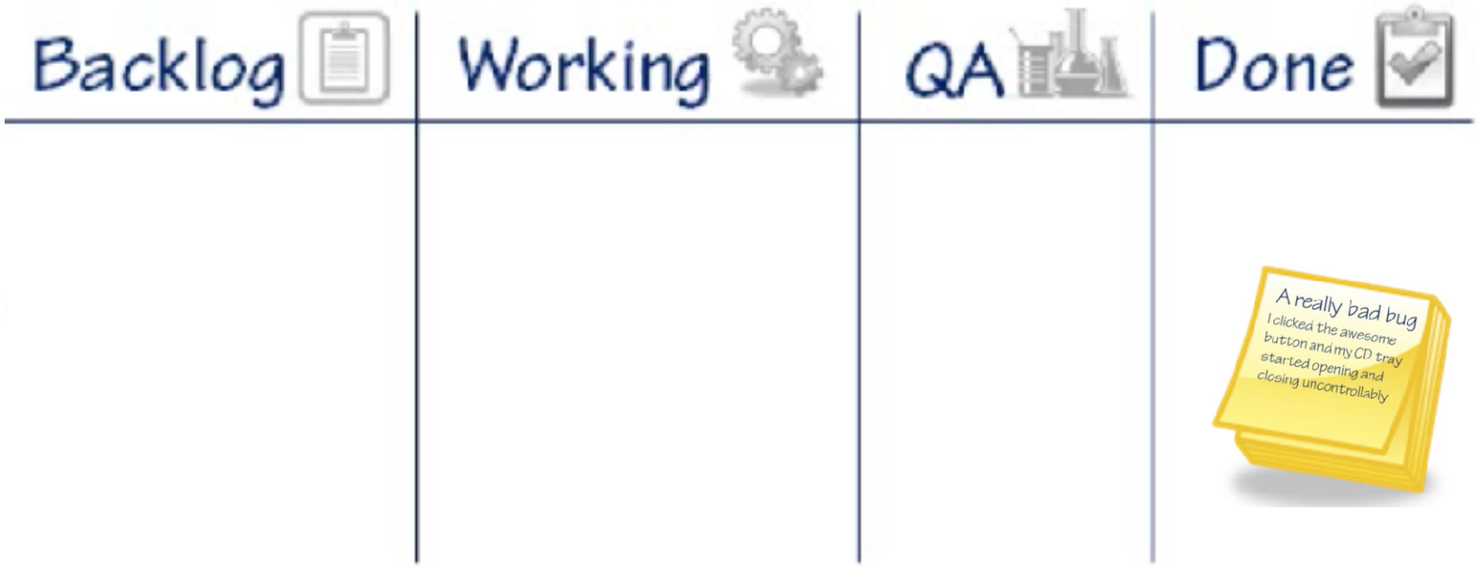
1. Requirements

Move a bug to other state



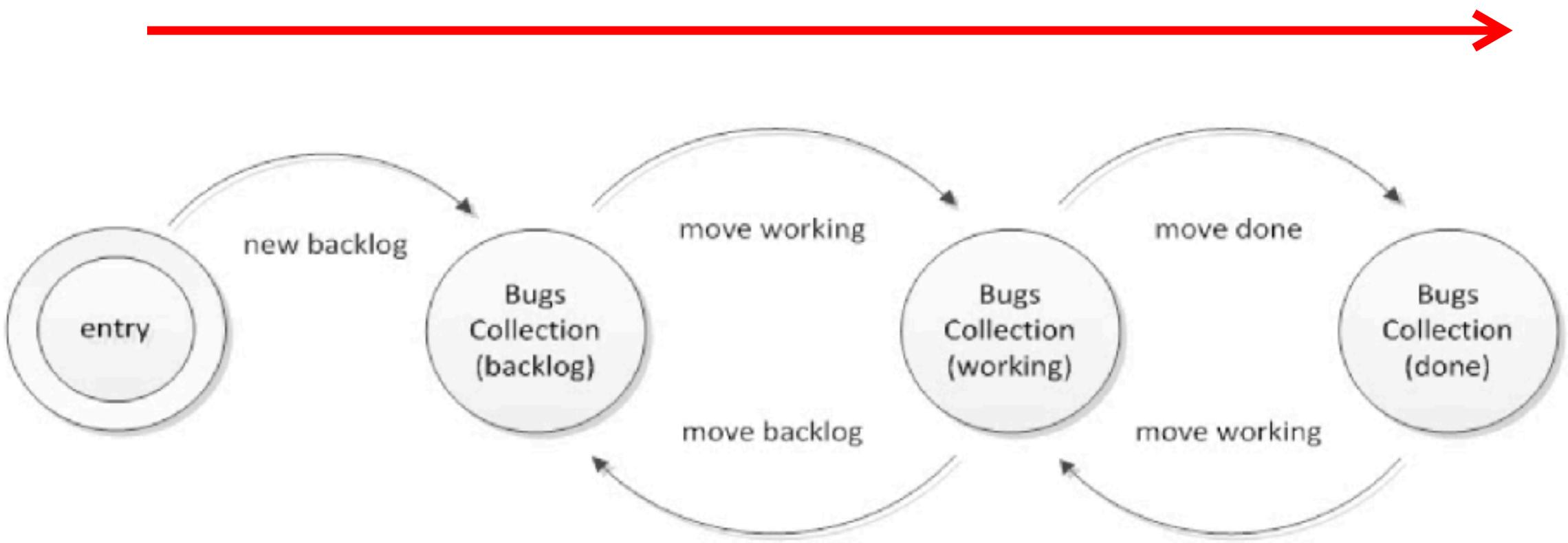
1. Requirements

Complete a bug



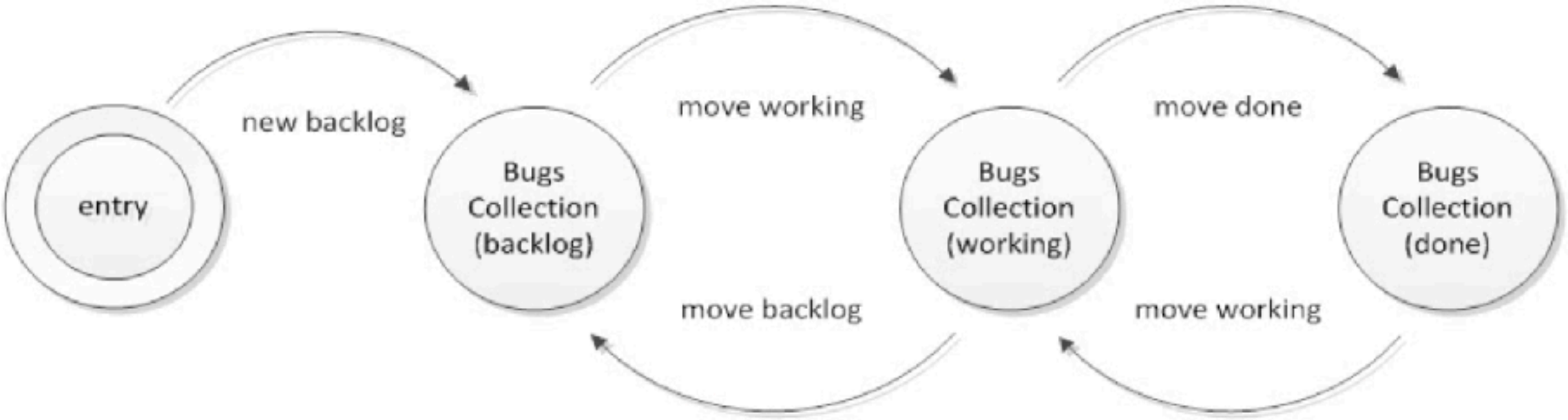
2. Application state transition

ระบบทุกระบบมี state เสมอ จะมาก จะน้อย เท่านั้น



Move กลับได้

3. Identify the resources



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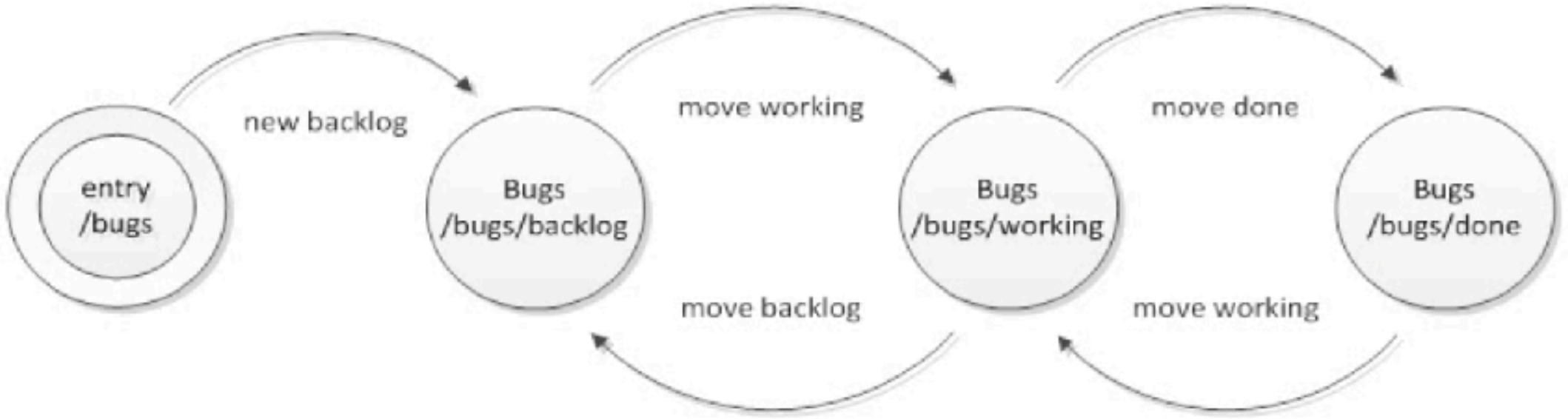

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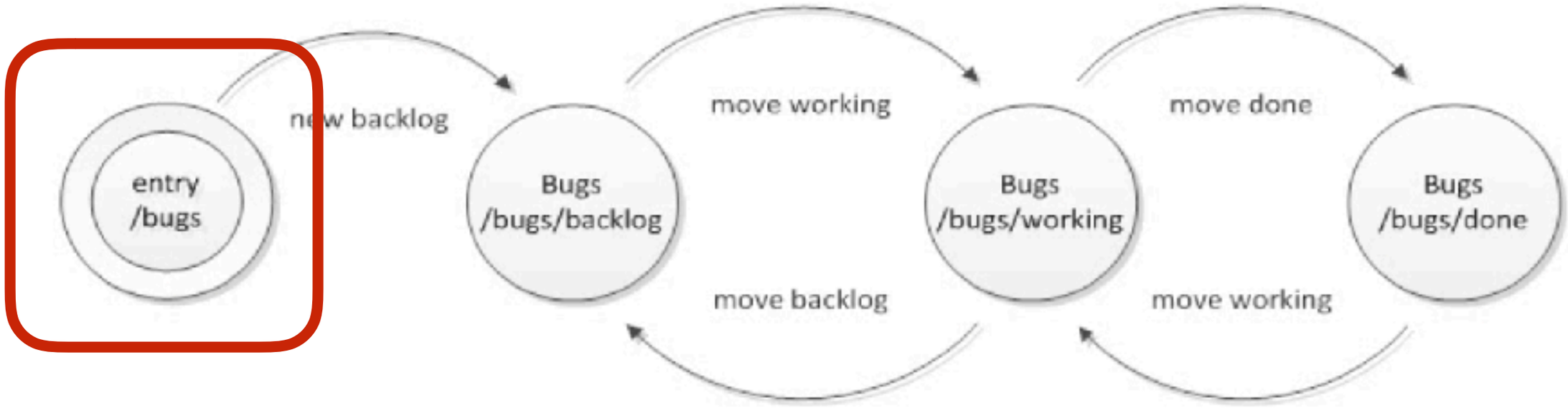
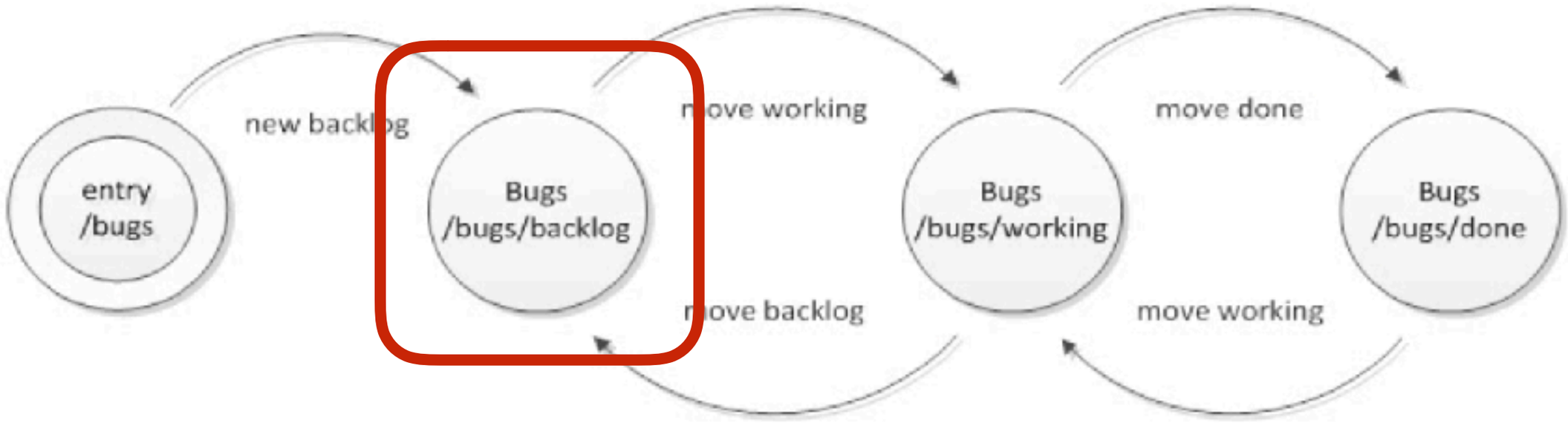


/bugs is entry point

Resources	HTTP Method	Description
/bugs	GET	List of bugs (all)
/bugs/:id	GET	Get bug information (individual)
/bugs	POST	Create new bug (one single)

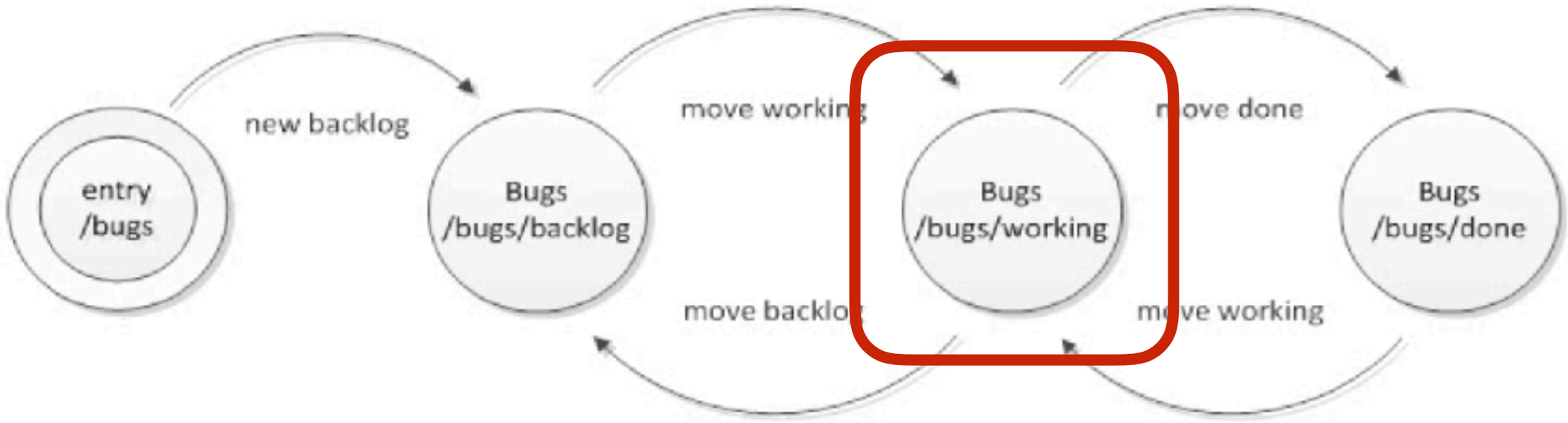
3. Identify the resources



/bugs/backlog

Resources	HTTP Method	Description
/bugs/backlog	GET	List of bugs in backlog
/bugs/backlog	POST	Add new bug to the backlog

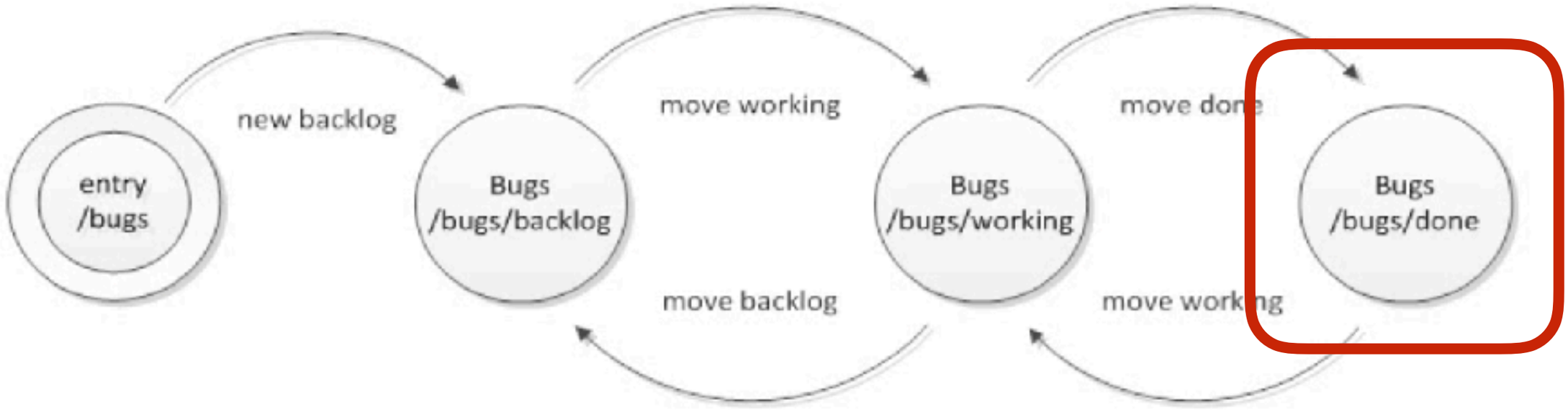
3. Identify the resources



/bugs/working

Resources	HTTP Method	Description
/bugs/working	GET	List of bugs in working
/bugs/working	POST	Activate a bug

3. Identify the resources



/bugs/done

Resources	HTTP Method	Description
/bugs/done	GET	List of bugs in done
/bugs/done	POST	Complete a bug

4. Design media types

Design API endpoints แล้ว ต้องออกแบบ data ด้วยเสมอ (example data)
คนใช้งานก็สามารถ feedback ได้ว่าชอบไม่ชอบ เช่น GET แล้ว return 100 fields แต่ต้องการแค่ 5 fields

TEXT, HTML, XML, **JSON** and etc.

```
{
  "id": 1,
  "title": "Bug 01",
  "description": "Bad Bug",
  "status": "new|backlog|working|done"
}
```

ถ้าเขียน JSON ควรเขียนให้ถูกด้วย

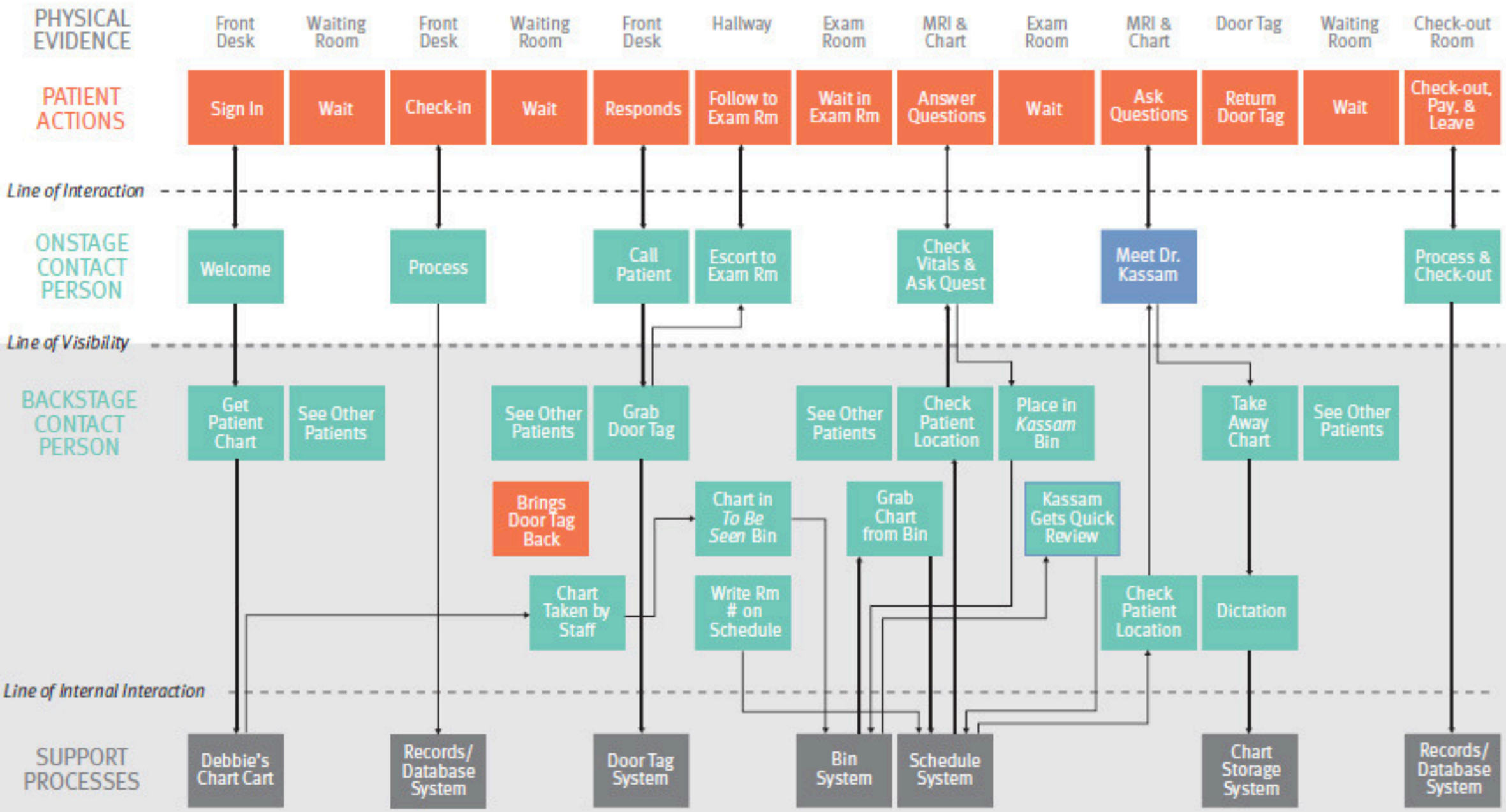
คนเขียนเอกสาร (Designer) ควรเป็นคนลงไปทำจริงด้วย

4. Design media types

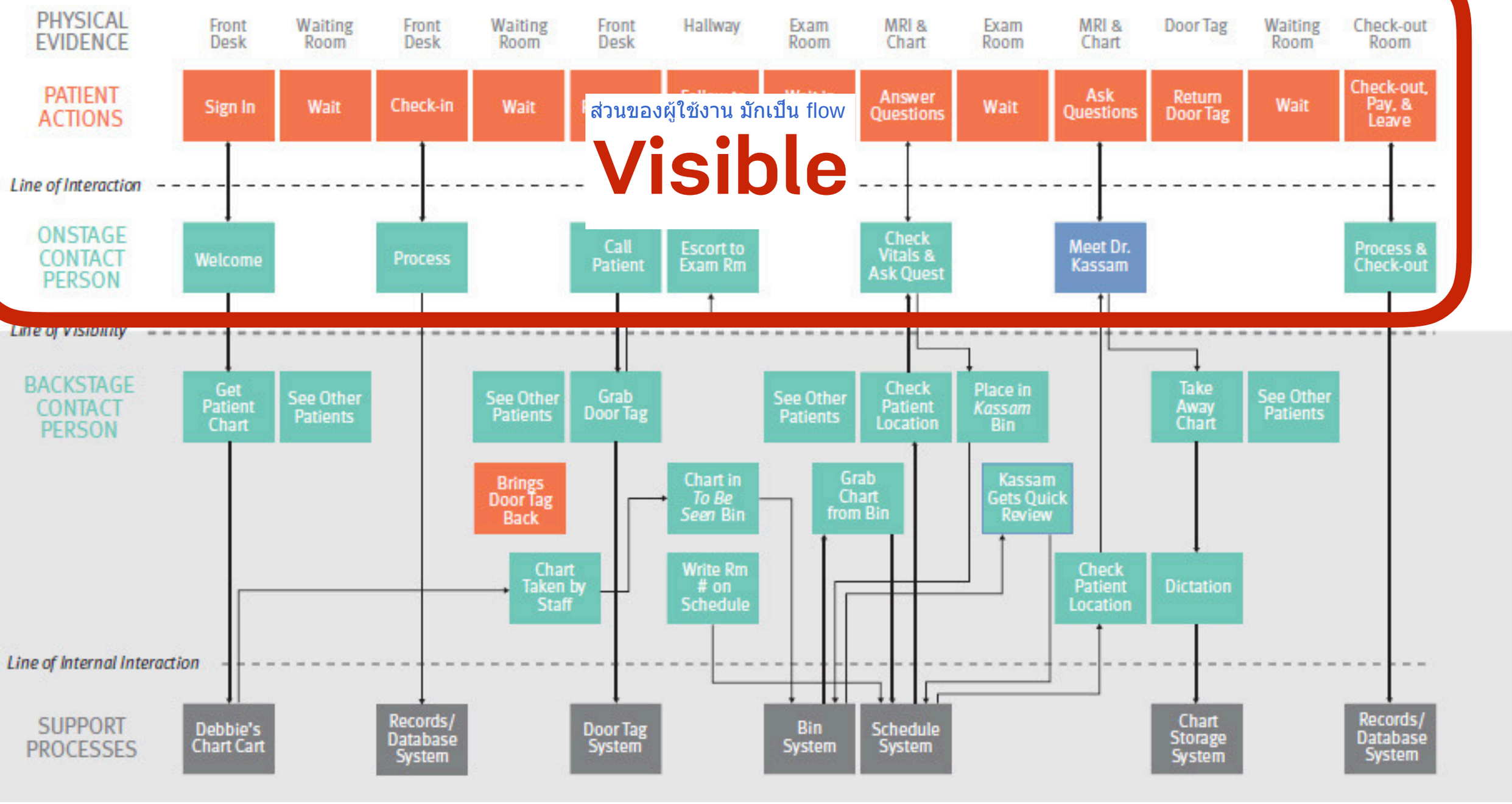
```
[
  {
    "id": 1,
    "title": "Bug 01",
    "description": "Bad Bug",
    "status": "new"
  },
  {
    "id": 2,
    "title": "Bug 02",
    "description": "Bad Bug",
    "status": "backlog"
  },
  {
    "id": 3,
    "title": "Bug 03",
    "description": "Bad Bug",
    "status": "working"
  }
]
```

Service design blueprint

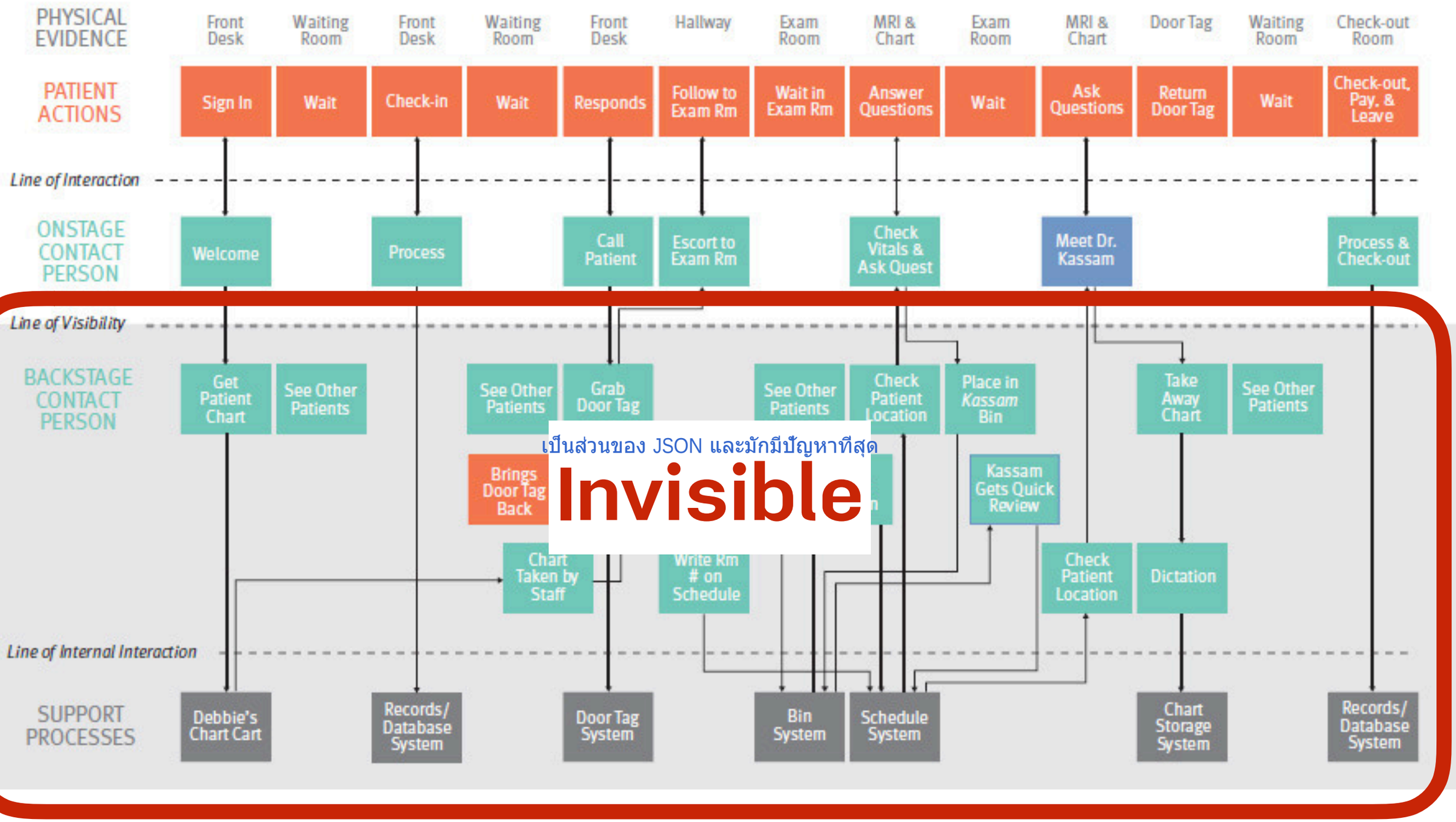
Service Blueprint of Presby Neuro Clinic



Service Blueprint of Presby Neuro Clinic



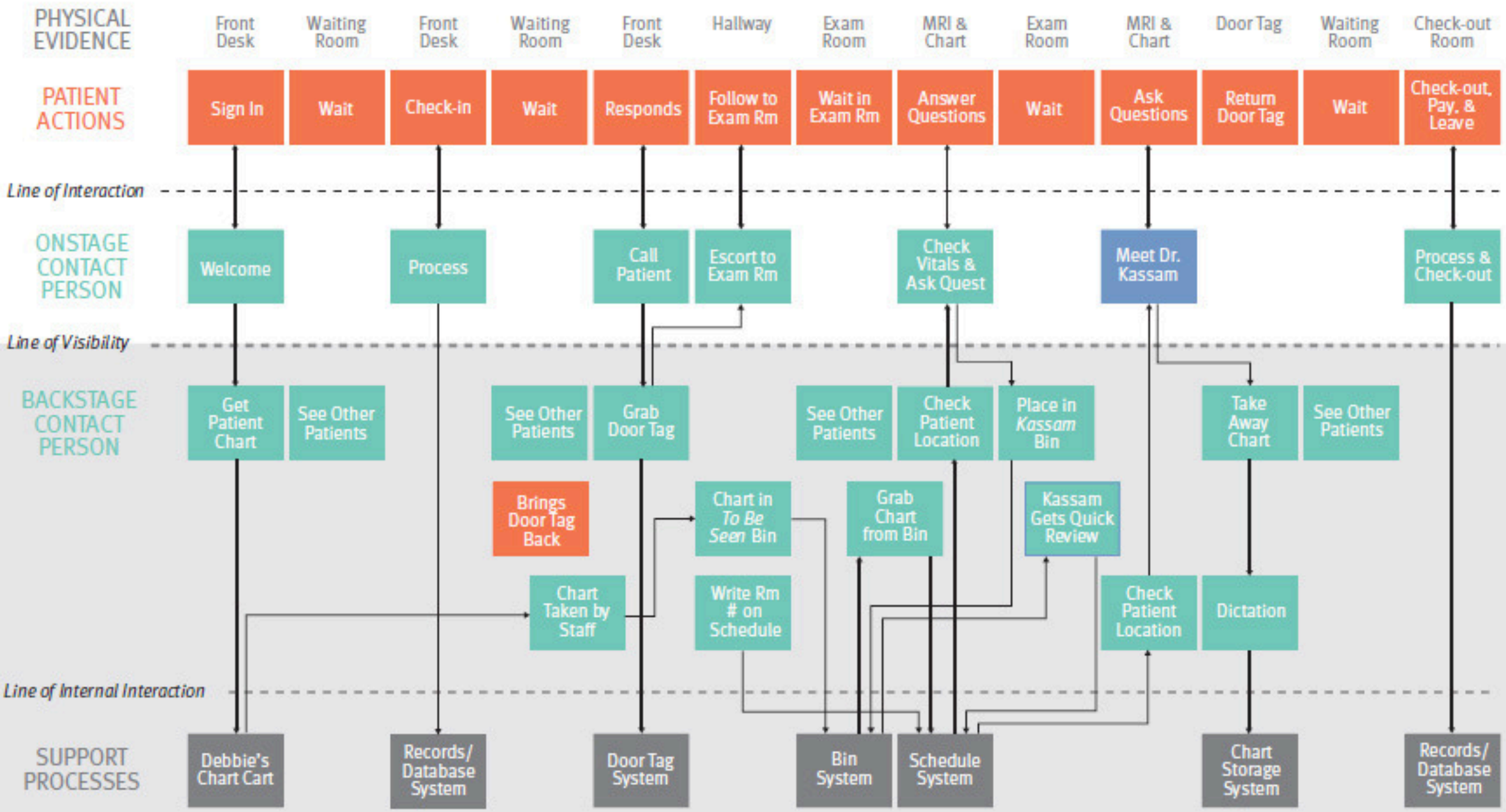
Service Blueprint of Presby Neuro Clinic



เป็นส่วนของ JSON และมักมีปัญหาที่สุด

Invisible

Service Blueprint of Presby Neuro Clinic



Quiz ?