# Mastery Grids, Aggregate and UM
# JSON Protocols and services

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Aggregate requests Knowledge and other general activity (including progress) separated in two different service calls. In this way, eventual separation between UM and activity record storages can be implemented. Providers define in aggregate database should include two URLs: the UM url for getting knowledge levels, and the activity url for getting user actions with the content. Aggregate is smart enough to recognize when different providers have the same URLs and combine the service calls in a single call.

**SPECIFICATIONS**

**A) Service for requesting Knowledge levels**

1. input JSON **posted** to server

```
{
        "user-id" : string,
        "group-id" : string,
        "domain" : string,
        "content-list-by-provider" :
        [
                { "provider-id" : string, "content-list" : [ string ] }
        ]
}
```

2. output JSON

```
{
        "user-id" : string,
        "group-id" : string,
        "domain" : string,
        "content-list":
        [
                {"content-id" : string, "knowledge": number}
        ],
        "concepts" :
        [
                {"concept-id": string, "concept-name": string, "knowledge": number}
        ]
}
```

## B) Service to get the activity levels

This service

1. input JSON pushed to server

```
{
        "user-id" : string,
        "group-id" : string,
        "content-list-by-provider" :
        [
                { "provider-id" : string, "content-list" : [ string ] }
        ]
}
```

2. output

```
{
        "user-id" : string,
        "group-id" : string,
        "content-list":
        [
                {"content-id" : string, "progress": number, "attempts": number, "success-rate": number,
                        "annotation-count": number, "like-count": number, "time-spent": number,
                        "sub-activities : number"}
        ]
}
```

## Services implemented

Service name : provider id
GetQJActivity: quizjet
GetQPActivity: quizpack
GetSKActivity: sqlknot
GetWEActivity: webex, animatedexamples
GetParsonsActivity: parsons
GetQPetActivity: quizpet

## EXAMPLE (work in progress)

------------------
Content of the course:

```
q1          QJ
q2          QJ
ex1         WE
ex2         WE
ae1         AE
```

Providers and URLs to UM

```
QJ          http://adapt2.sis.pitt.edu/aggregateUMServices/GetUserKnowledge
WE          http://adapt3.sis.pitt.edu/aggregateUMServices/GetUserKnowledge2
AE          http://adapt3.sis.pitt.edu/aggregateUMServices/GetUserKnowledge2
```

Getting the Knowledge

http://adapt2.sis.pitt.edu/aggregateUMServices/GetKnowledge

```
{
        "user-id" : "dguerra",
        "group-id" : "test",
        "domain" : "java",
        "content-list-by-provider" :
        [
        { "provider-id" : "QJ", "content-list" : [ "q1","q2" ] }
        ]
}
```

http://adapt3.sis.pitt.edu/aggregateUMServices/GetKnowledge2

```
{
        "user-id" : "dguerra",
        "group-id" : "test",
        "domain" : "java",
        "content-list-by-provider" :
        [
        { "provider-id" : "WE", "content-list" : [ "ex1","ex2" ] },
        { "provider-id" : "AE", "content-list" : [ "ae1" ] }
        ]
}
```