

# Working with Resource Collections

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# Coming Up



**Getting Child Resources Together with a Parent Resource**

**Creating Child Resources Together with a Parent Resource**

**Adding a Set of Resources in One Go**



# Getting Child Resources Together with a Parent Resource

**GET api/tours/{tourId}**

{ one tour }

**GET api/tours/{tourId}/shows**

{ the shows of that tour }

**GET api/tours/{tourId}**

{ one tour with shows }



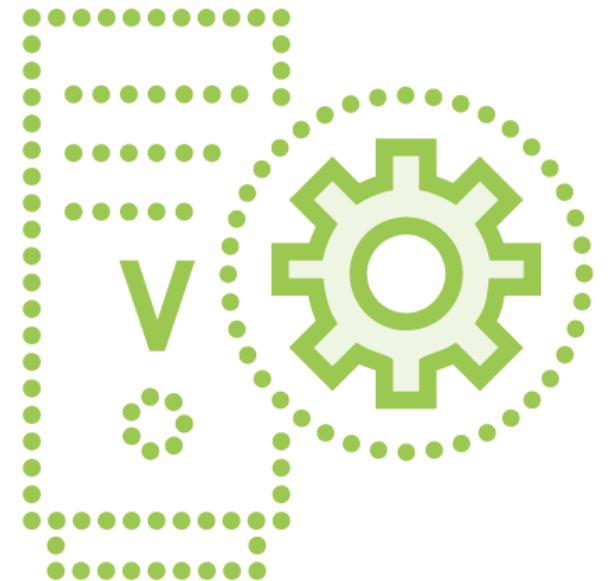
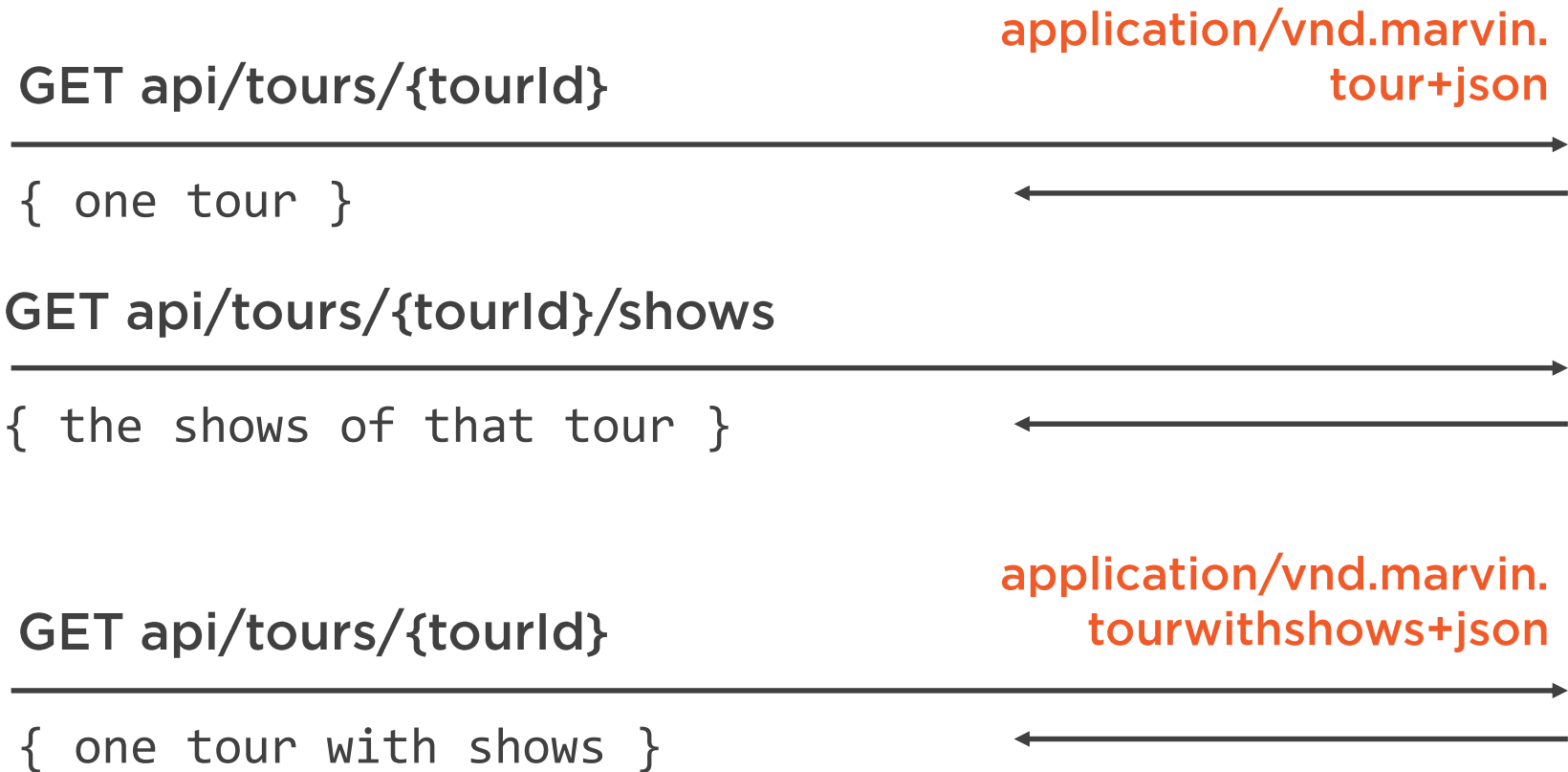
# Getting Child Resources Together with a Parent Resource



**Multiple calls to an API cause a performance hit**

**Returning children together with their parent when they're not needed also causes a performance hit**

# Getting Child Resources Together with a Parent Resource



TourAbstractBase

Title

Description

Band

StartDate

EndDate

TourForCreation :  
TourAbstractBase

BandId

Tour :  
TourAbstractBase

TourId

TourWithManagerForCreation :  
TourForCreation

ManagerId

TourWithEstimatedProfits :  
Tour

EstimatedProfits



actBase

Tour :  
TourAbstractBase  
TourId

TourWithShows :  
Tour  
Shows

TourWithEstimatedProfits :  
Tour  
EstimatedProfits

TourWithEstimatedProfitsAndShows :  
TourWithEstimatedProfits  
Shows



# On Complex Hierarchies...

Try to keep the object inheritance graph to 5 levels deep or less





# Demo



**Getting Child Resources Together with a  
Parent Resource (Server)**



# Demo



**Getting Child Resources Together with a Parent Resource (Client)**



# Creating Child Resources Together with a Parent Resource



## Avoid using separate requests

- Overhead
- Not good for data integrity

TourAbstractBase

Title

Description

Band

StartDate

EndDate

TourForCreation :  
TourAbstractBase

BandId

Tour :  
TourAbstractBase

TourId

TourWithManagerForCreation :  
TourForCreation

ManagerId

TourWithEstimatedProfits :  
Tour

EstimatedProfits



TourWithShowsForCreation :  
TourForCreation  
Shows

TourForCreation :  
TourAbstractBase  
BandId

TourAbs  
Title  
Descript  
Band  
StartDat  
EndDate

TourWithManagerAndShowsForCreation :  
TourWithManagerForCreation  
Shows

TourWithManagerForCreation :  
TourForCreation  
ManagerId



# Demo



Creating Child Resources Together with a  
Parent Resource (Server)



# Demo



## Creating a Reusable Component for Adding a Show



# Demo



## Creating Child Resources Together with a Parent Resource (Client)





# Adding a Set of Resources in One Go



**Creating the resources one by one causes overhead and can be bad for data integrity**

# Adding a Set of Resources in One Go



**Multiple resources can work on the same underlying set of data**



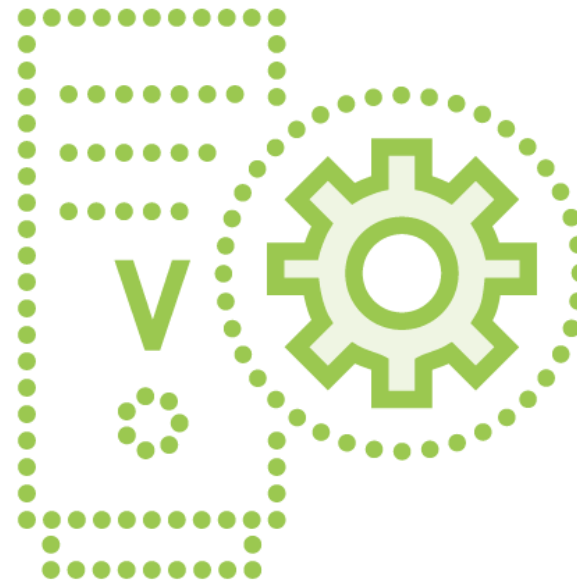
# Adding a Set of Resources in One Go

**POST api/tours/{tourId}/shows**

{  
 one show  
}

**POST api/tours/{tourId}/showcollections**

{  
 one collection of shows  
}



[shows in  
the data store]



# Demo



Adding a Set of Resources in One Go  
(Server)



# Demo



Adding a Set of Resources in One Go  
(Client)



# Demo



## Generating a Location Header for a Multi-key Resource



# Summary



Improve performance by getting child resources together with their parent

Improve performance and data integrity by creating child resources together with their parent

Improve performance and data integrity by adding a set of resources in one go



# Summary



Avoid code duplication by using object-oriented techniques

Keep the object inheritance graph to 5 levels deep (or less) to avoid inheritance complexity

