

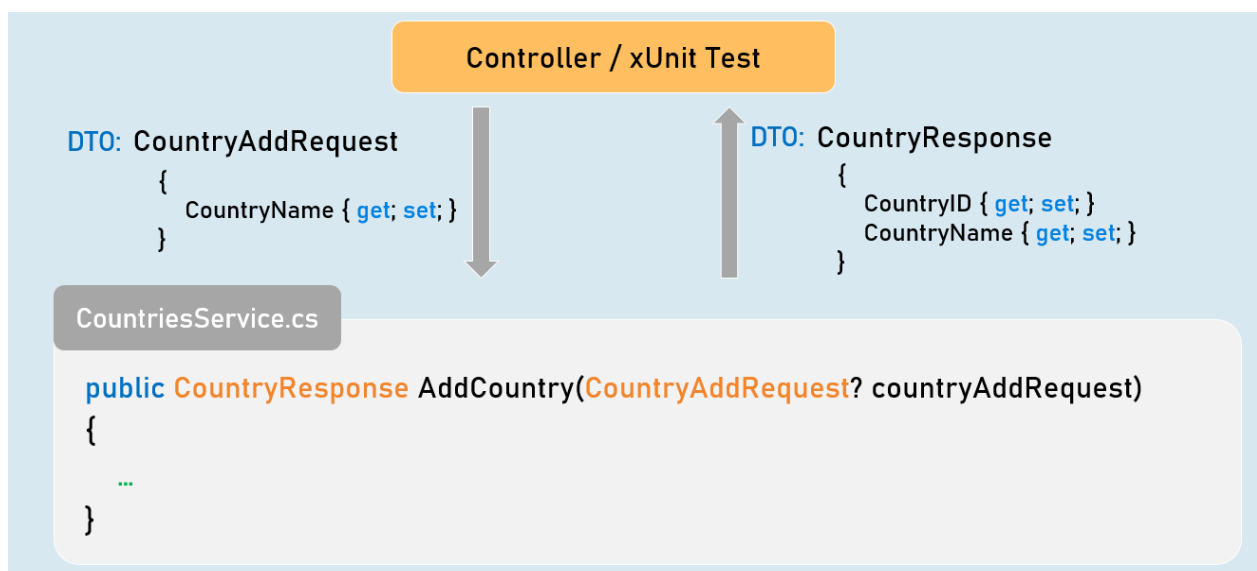
# Section Cheat Sheet (PPT)

## Introduction to xUnit

xUnit is the free, open source unit testing tool for .NET Framework.

- Easy and extensible.
- Best to use with a mocking framework called "Moq".

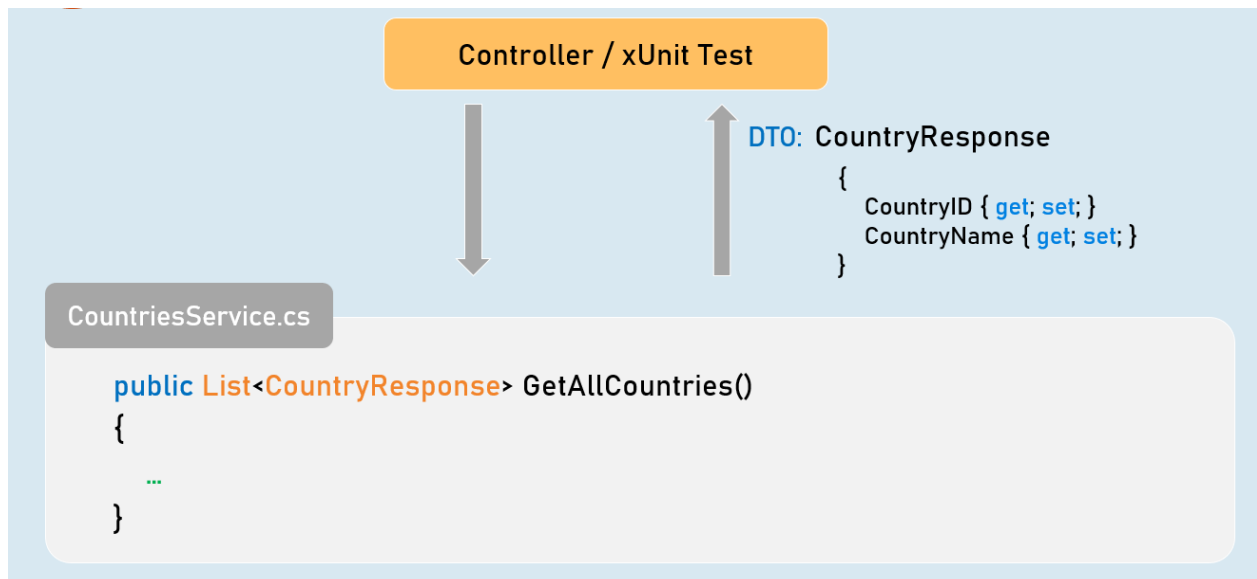
## Add Country - xUnit Test



```
public CountryResponse AddCountry(CountryAddRequest?
    countryAddRequest)
{
    //Check if "countryAddRequest" is not null.
```

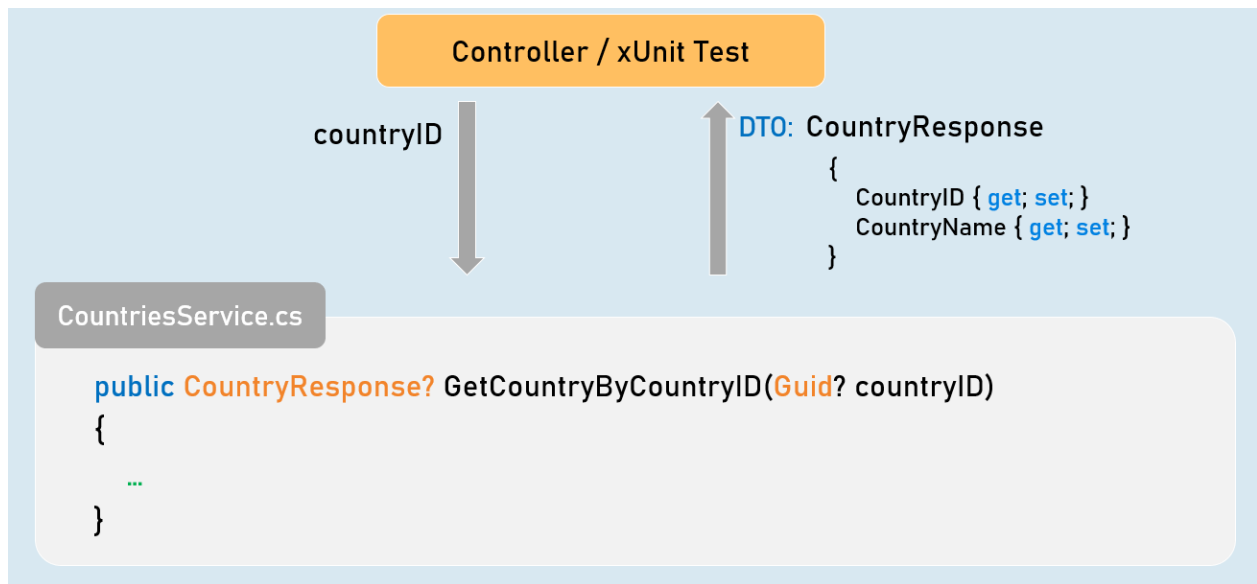
```
//Validate all properties of "countryAddRequest"
//Convert "countryAddRequest" from "CountryAddRequest"
    type to "Country".
//Generate a new CountryID
//Then add it into List<Country>
//Return CountryResponse object with generated CountryID
}
```

## Get All Countries - xUnit Test



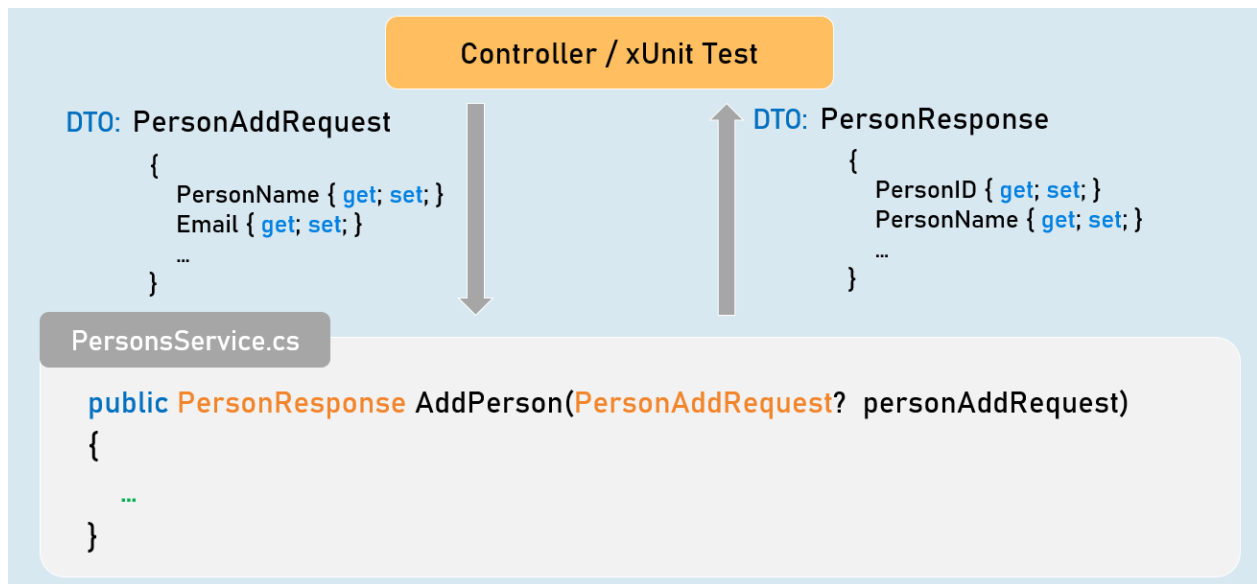
```
public List<CountryResponse> GetAllCountries()
{
    //Convert all countries from "Country" type to
        "CountryResponse" type.
    //Return all CountryResponse objects
}
```

## Get Country by Country ID - xUnit Test



```
public CountryResponse? GetCountryByCountryID(Guid?
    countryID)
{
    //Check if "countryID" is not null.
    //Get matching country from List<Country> based
    countryID.
    //Convert matching country object from "Country" to
    "CountryResponse" type.
    //Return CountryResponse object
}
```

## Add Person - xUnit Test

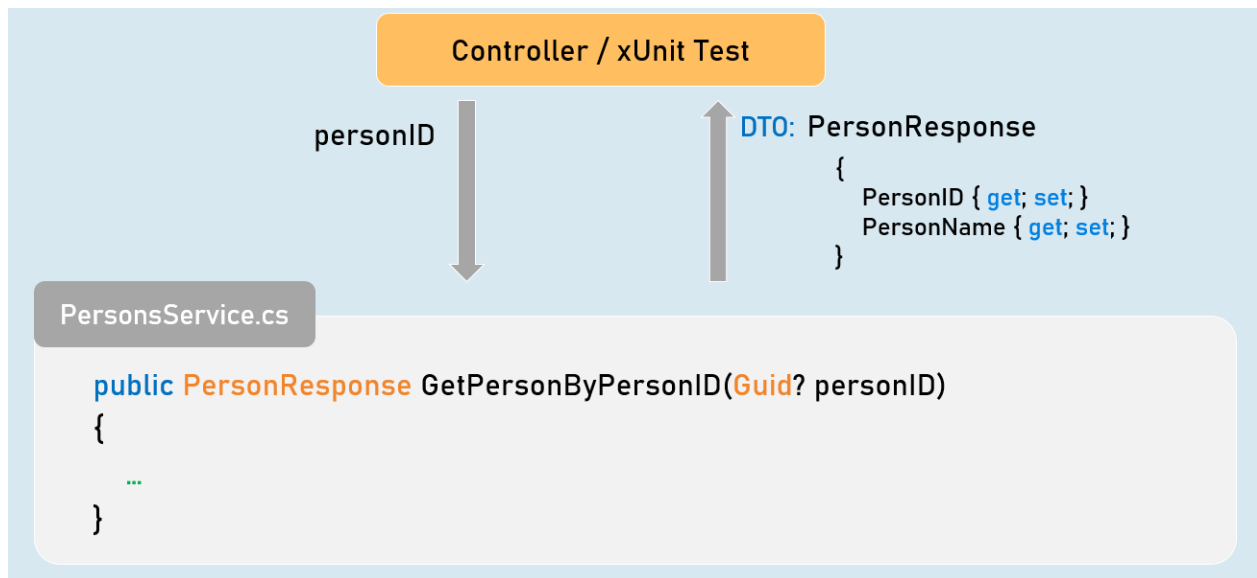


```

public PersonResponse AddPerson(PersonAddRequest?
    personAddRequest)
{
    //Check if "personAddRequest" is not null.
    //Validate all properties of "personAddRequest".
    //Convert "personAddRequest" from "PersonAddRequest"
        type to "Person".
    //Generate a new PersonID.
    //Then add it into List<Person>.
    //Return PersonResponse object with generated PersonID.
}

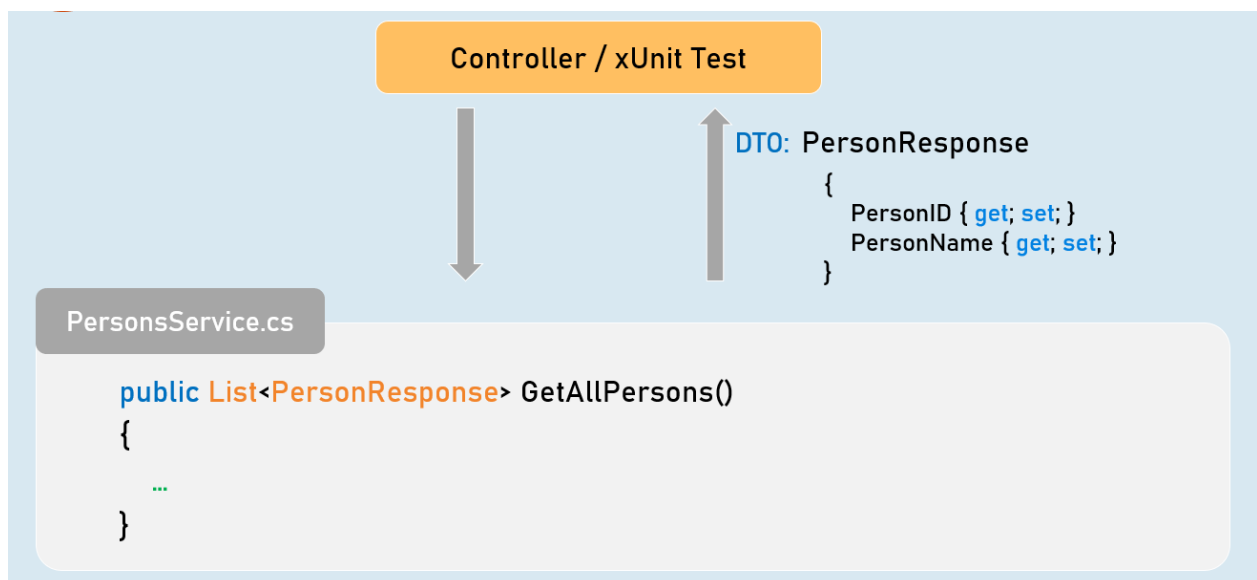
```

## Get Person by Person ID - xUnit Test



```
public PersonResponse GetPersonByPersonID(Guid? personID)
{
  //Check if "personID" is not null.
  //Get matching person from List<Person> based personID.
  //Convert matching person object from "Person" to
  "PersonResponse" type.
  //Return PersonResponse object
}
```

## Get All Persons - xUnit Test

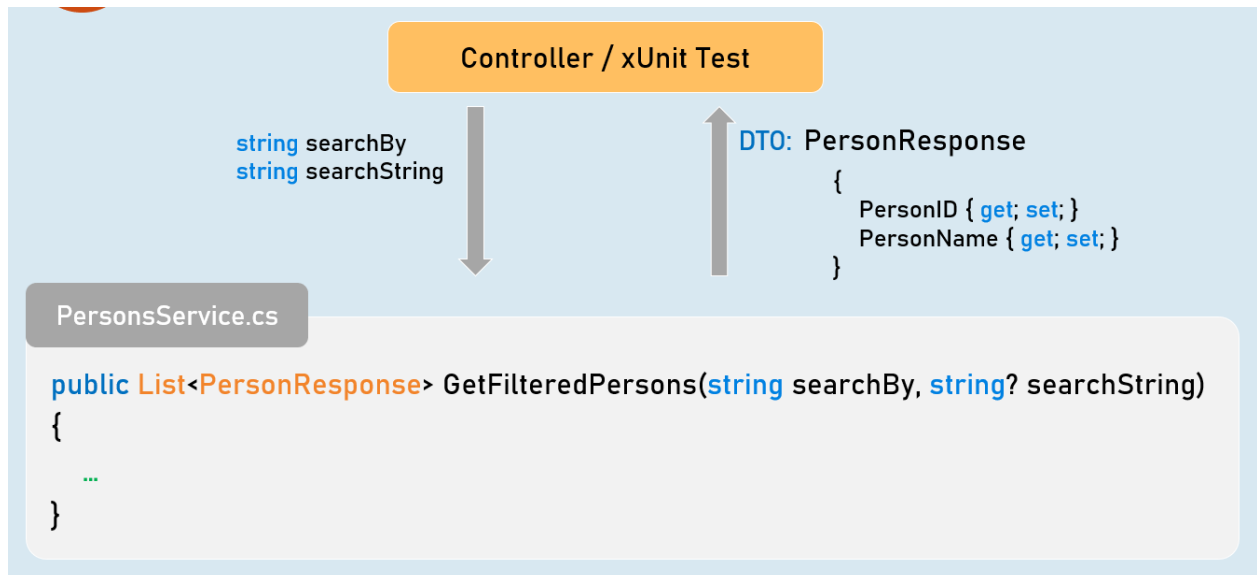


```

public List<PersonResponse> GetAllPersons()
{
    //Convert all persons from "Person" type to
    // "PersonResponse" type.
    //Return all PersonResponse objects
}

```

## Get Filtered Persons - xUnit Test

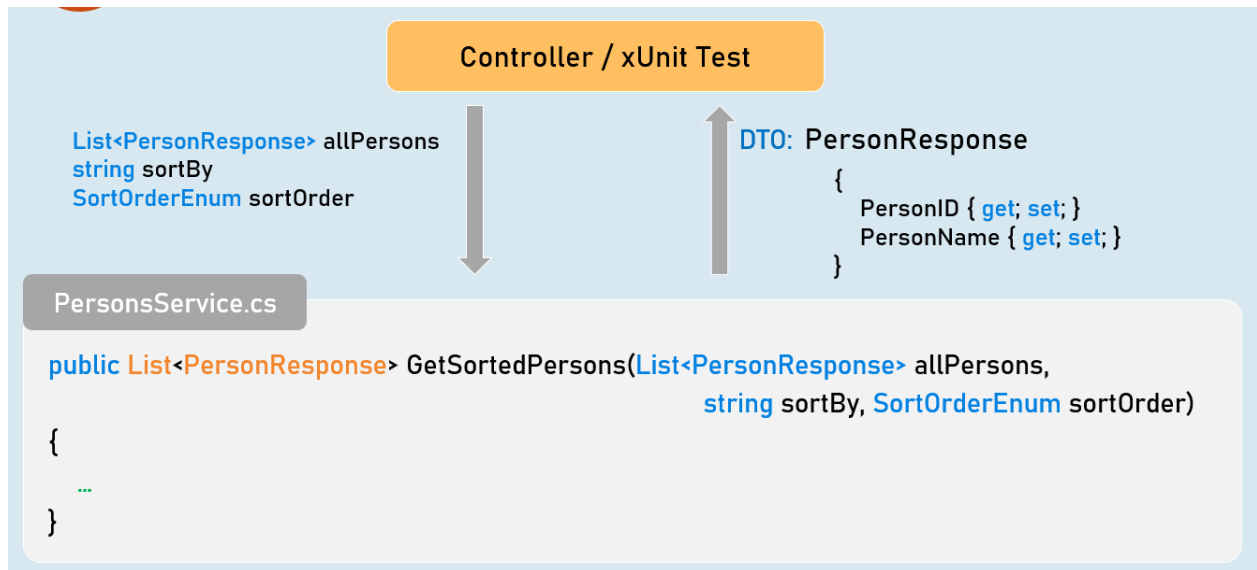


```

public List<PersonResponse> GetFilteredPersons(string
    searchBy, string? searchString)
{
    //Check if "searchBy" is not null.
    //Get matching persons from List<Person> based on given
    // searchBy and searchString.
    //Convert the matching persons from "Person" type to
    // "PersonResponse" type.
    //Return all matching PersonResponse objects
}

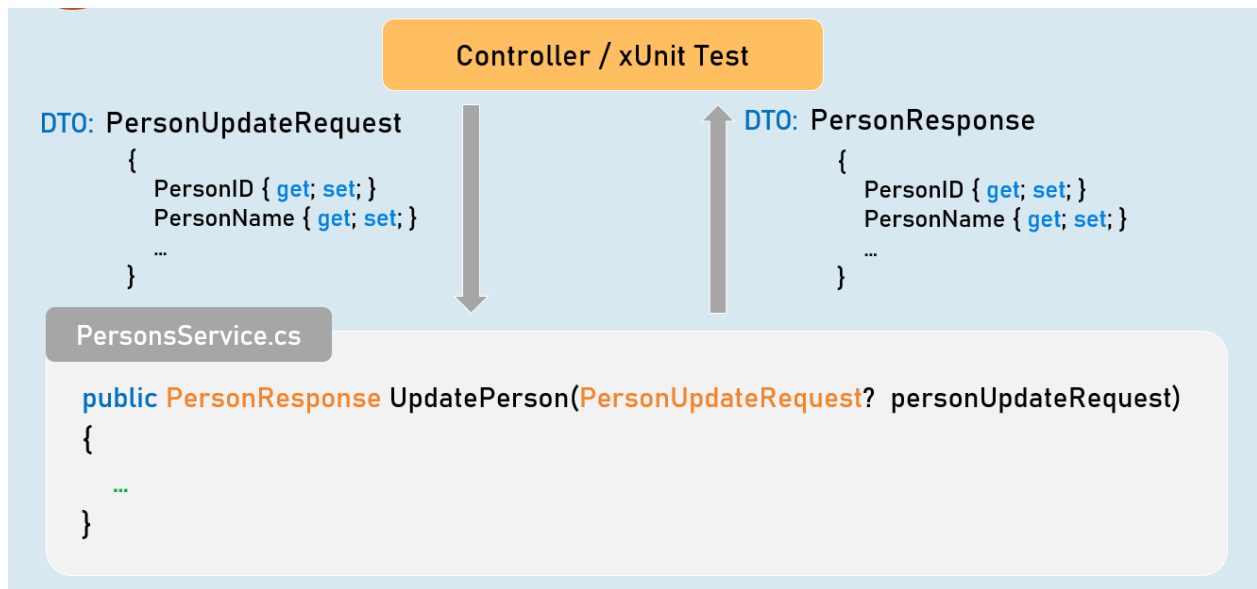
```

# Get Sorted Persons - xUnit Test



```
public List<PersonResponse>
    GetSortedPersons(List<PersonResponse> allPersons,
string sortBy, SortOrderEnum sortOrder)
{
    //Check if "sortBy" is not null.
    //Get sorted persons from "allPersons" based on given
    "sortBy" and "sortOrder".
    //Convert the sorted persons from "Person" type to
    "PersonResponse" type.
    //Return all sorted PersonResponse objects
}
```

## Update Person - xUnit Test

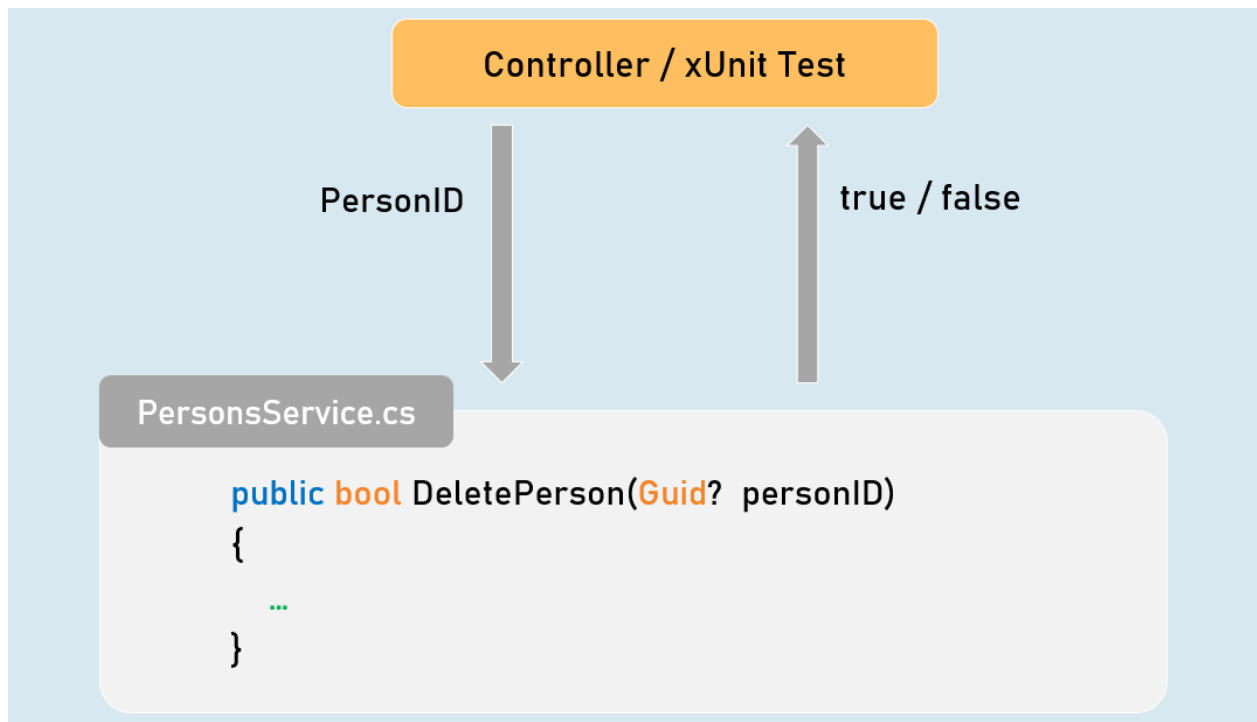


```

public PersonResponse UpdatePerson(PersonUpdateRequest?
    personUpdateRequest)
{
    //Check if "personUpdateRequest" is not null.
    //Validate all properties of "personUpdateRequest"
    //Get the matching "Person" object from List<Person>
    based on PersonID.
    //Check if matching "Person" object is not null
    //Update all details from "PersonUpdateRequest" object
    to "Person" object
    //Convert the person object from "Person" to
    "PersonResponse" type
    //Return PersonResponse object with updated details
}
    
```

## Delete Person - xUnit Test





```
public bool DeletePerson(Guid? personID)
{
    //Check if "personID" is not null.
    //Get the matching "Person" object from List<Person>
    //based on PersonID.
    //Check if matching "Person" object is not null
    //Delete the matching "Person" object from List<Person>
    //Return Boolean value indicating whether person object
    //was deleted or not
}
```