# Exam Preparation II

**02. Athletes**

You can check your solutions in [Judge](https://judge.softuni.org/Contests/Practice/Index/4699" \l "1).

**Your Task**

Your task is to write a single **function** solve() that performs various data manipulation operations on a given array of athlete objects. You will **add**, **remove**, **update**, and **filter** athletes within this array. The function solve() should take an **array** of **athletes** as its **parameter**. **Inside** this **function**, you will define several **methods** to handle specific operations, and **each method** should **return** its **respective message**.

You are provided with an **array** called **athletes** that contains objects. Each object represents an athlete and has the following **properties**:

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| --- |
| let athletes = [  { id: 1, name: "Usain Bolt", sport: "Sprinting", medals: 8, country: "Jamaica" },  { id: 2, name: "Michael Phelps", sport: "Swimming", medals: 23, country: "USA" },  { id: 3, name: "Simone Biles", sport: "Gymnastics", medals: 7, country: "USA" }  ]; |

Write the following **methods** **inside** the solve() function:

**Filter Athletes by sport**

* Write a function getAthletesBySport(sport) that takes a **sport** parameter and returns an array of athletes who participate in a given sport.
* The method should return new array with **filtered athletes**.

#### Add a new Athlete

* Write a function addAthlete(id, name, sport, medals, country) that takes five parameters (**id**, **name**, **sport**, **medals**, **country**) and adds a new athlete to the **athletes** array.
* The method should return **athletes array with new athlete included**.

#### Find Athlete by ID

* Write a function getAthleteById(id) that takes an **id parameter** and returns the **athlete object** with the **given id**.
* The method should return **athlete object** or `Athlete with ID ${id} not found`

#### Remove Athlete by ID

* Write a function removeAthleteById(id) that takes an **id parameter** and **removes** the **athlete** with the **given id** from the athletes array.
* The method should return **athletes array without the removed athlete.**
* If the athlete with this ID does not exist, return: `Athlete with ID ${id} not found`

#### Update Athlete's medal count

* Write a function updateAthleteMedals(id, newMedals) that takes an **id** parameter and a newMedals parameter and updates the medal count of the athlete with the given id.
* The method should return **athletes array with updated athlete medal count**.
* If the athlete with this ID does not exist, return: `Athlete with ID ${id} not found`

#### Update Athlete's country

* Write a function updateAthleteCountry(id, newCountry) that takes an **id** parameter and a newCountry parameter and updates the country of the athlete with the given id.
* The method should return **athletes array with updated athlete country**.
* If the athlete with this ID does not exist, return: `Athlete with ID ${id} not found`

At the end of the **solve()** function, **do not forget to include the final** **return** **statement** that returns an object with references to all the methods you have defined. This will allow the methods to be called from outside the **solve()** function.

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Description automatically generated

### Examples

|  |  |
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| **Input** | **Output** |
| const olympics = solve(athletes);  olympics.**getAthletesBySport**("Swimming"); | [{id: 2, name: 'Michael Phelps', sport: 'Swimming', medals: 23, country: 'USA'}] |
| olympics.**addAthlete**(4, "Katie Ledecky", "Swimming", 7, "USA"); | [{id: 1, name: 'Usain Bolt', sport: 'Sprinting', medals: 8, country: 'Jamaica'}, {id: 2, name: 'Michael Phelps', sport: 'Swimming', medals: 23, country: 'USA'}, {id: 3, name: 'Simone Biles', sport: 'Gymnastics', medals: 7, country: 'USA'}, {id: 4, name: 'Katie Ledecky', sport: 'Swimming', medals: 7, country: 'USA'}] |
| olympics.**getAthleteById**(1); | {id: 1, name: 'Usain Bolt', sport: 'Sprinting', medals: 8, country: 'Jamaica'} |
| olympics.**removeAthleteById**(2); | [{id: 1, name: 'Usain Bolt', sport: 'Sprinting', medals: 8, country: 'Jamaica'}, {id: 3, name: 'Simone Biles', sport: 'Gymnastics', medals: 7, country: 'USA'}] |
| olympics.**updateAthleteMedals**(3, 8); | [{id: 1, name: 'Usain Bolt', sport: 'Sprinting', medals: 8, country: 'Jamaica'}, {id: 2, name: 'Michael Phelps', sport: 'Swimming', medals: 23, country: 'USA'}, {id: 3, name: 'Simone Biles', sport: 'Gymnastics', medals: 8, country: 'USA'}] |
| olympics.**updateAthleteCountry**(10, "Canada"); | Athlete with ID 10 not found |

**Submission**

In Judge submit only solve() function.