How to eliminate a value in the middle of an array in Perl?

In response to an earlier article about undef one of the readers asked me:

How do you eliminate a value in the middle of an array in Perl?

I am not sure if undef and eliminating values from an array are related, though I guess, if we see having a value of undef as being "empty", then I can understand the connection. In general though, setting something to be undef and deleting something is not the same.

Let's see first how we can set an element of an array to be undef and then how we can delete an element from an array.

We start with the following code:

```perl
1. use Data::Dumper qw(Dumper);
   my @dwarfs = qw(Doc Grumpy Happy Sleepy Sneezy Dopey Bashful);
   print Dumper \@dwarfs;
```

When printed using Data::Dumper we get the following output:

```
$VAR1 = [
          'Doc',
          'Grumpy',
          'Happy',
          'Sleepy',
          'Sneezy',
          'Dopey',
          'Bashful'
        ];
```

Set an element to undef

Using the return value of the undef() function:

```
1. use Data::Dumper qw(Dumper);
   my @dwarfs = qw(Doc Grumpy Happy Sleepy Sneezy Dopey Bashful);

   $dwarfs[3] = undef;
5.
   print Dumper \@dwarfs;
```

This code will set element 3 (the 4th element of the array) to undef , but will **NOT** change the size of the array:

```
$VAR1 = [
           'Doc',
           'Grumpy',
           'Happy',
           undef,
           'Sneezy',
           'Dopey',
           'Bashful'
         ];
```

Using the undef() function directly on an element of an array yields similar results:

```
1. use Data::Dumper qw(Dumper);
   my @dwarfs = qw(Doc Grumpy Happy Sleepy Sneezy Dopey Bashful);

   undef $dwarfs[3];
5.
   print Dumper \@dwarfs;
```

So for our purposes $dwarfs[3] = undef; and undef $dwarfs[3]; do the same thing. They both can set a value to be undef .

Removing an element from the array using splice

The splice function can totally eliminate the value from the array:

```
1. use Data::Dumper qw(Dumper);
   my @dwarfs = qw(Doc Grumpy Happy Sleepy Sneezy Dopey Bashful);

   splice @dwarfs, 3, 1;
5.
   print Dumper \@dwarfs;
```

```
$VAR1 = [
         'Doc',
         'Grumpy',
         'Happy',
         'Sneezy',
         'Dopey',
         'Bashful'
       ];
```

As you can see, in this case the array became one element shorter as we have **removed one of the elements** from the middle of the array.

This is how you can **delete an element from an array**.

For further details check how to splice arrays in Perl.