

1. Global Execution Context Lexical environment

a) Creation phase

LE: {makeArmy:fn, outer:null} thisBinding:window

TDZ

b) Execution phase

LE: {makeArmy:function, outer:null, army:[fn,fn]}
thisBinding:window

2. MakeArmy Function Execution Context – Lexical Environment

a. Creation

LE:{outer:global}, thisBinding:window

TDZ

Shooters
i

b. Execution

LE:{outer:global,shooters:[fn,fn],i:0}, thisBinding:window

3. While loop Execution Context

a. Creation phase

LE:{outer:makeArmy,anonymous:fn}, thisBinding:window

TDZ

Shooter

NB: There are three iteration with the same lexical execution.

b. Execution

The first loop execution context

LE:{outer:makeArmy,anonymous:fn,shooter: fn},
thisBinding:window

NB: The anonymous function has to lexical execution environment.

4. Lexical execution for **army[0]**

- a. Creation phase

```
LE:{outer:whileloop}, thisBinding>window
```

- b. Execution

```
LE:{outer:whileloop}, thisBinding>window
```

5. What will `army[0]` alert? `army[0]` alert is not function call but is function. To make it function call we should correct it `army[0]()`. And basically after making it function the method will always alert **i result after increment**.
6. Here below is the correction.

```
7. function makeArmy(){
8.   let shooters=[];
9.   let i=0;
10.  while(i<2){
11.    let counter=i;
12.    let shooter = function(){
13.      alert(counter);
14.    };
15.    shooters.push(shooter);
16.    i++;
17.  }
18.  return shooters;
19. }
20. let army =makeArmy();
21. army[0]();
```

7. Changes in diagram after correction is all about having local variable **j** in addition.

Question 2: printNumber function that can print every number as scheduled.

```
function printNumbers(from,to){
  setInterval(()=>{
    if(from<=to){
      console.log(from);
      from++;
    }
  },1000)};
printNumbers(5,7);
```

Question 3: Explanation about setTimeout scheduled function.

```
let i=0;
setTimeout(()=>alert(i),100);
for(let j=0;j<100000000;j++){
  i++;
}
```

The scheduled function run after the loop. Because setTimeout simply queues the code to run once the current call stack is finished executing. Once done, the setTimeout will execute the alert which will be popout window with the value of i (i.e. 100000000).