

Project 3

Program Debugging

Group-5

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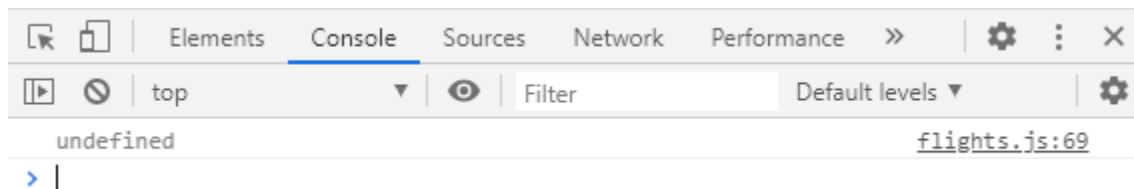
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Question-1

Ticket Web 1: Flight are not moving from departure to destination.

Error 1:



When we click the background image there was no flight movement and later when we checked the console in the browser then we found in file flights.js at line no.69 the variable was undefined.

```
// 1.1 Json structure is incorrect
//TICKET 1 ERROR 1
var flightJson = '{"flights":[{"departure":"Quebec","departureX":"734",
```

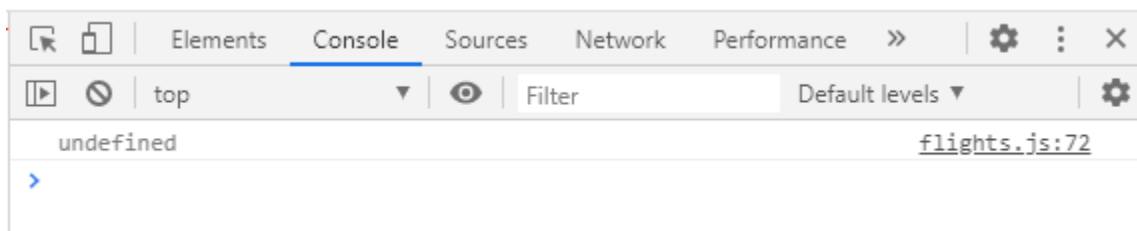
In the code at line no.69 the json structure was incorrect because in json array the departureX, departureY , departureTime, arrivalX,arrival Y, Duration all these variables suppose to have an integer values because these all are describing positions and time and these cannot be strings but in the code these

were like declared as string that is double quotes “departure” : “734” so that’s why we have to declare as integers without double quotes.

Correction: In json array the departureX, departureY , departureTime, arrivalX,arrival Y, Duration all these variables suppose to have an integer values so now we are declaring these as integers that is without double quotes “departure” : 734 .

```
//TICKET 1 ERROR 1 Correction  
var flightJson = '{"flights":[{"departure":"Quebec","departureX":734,"
```

Error.2



In the console in the browser we found in file flights.js at line no.72 the variable was undefined.

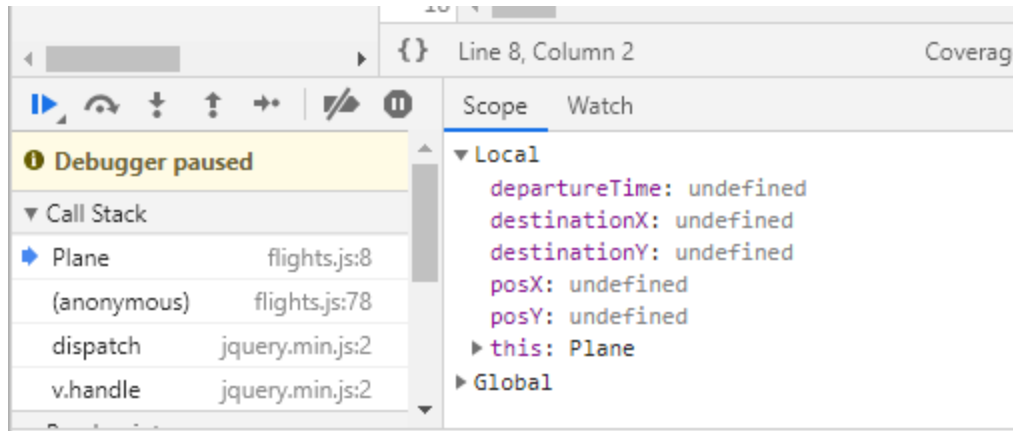
```
var flightJson = '{"flights":[{"departure"  
var JSONObject = JSON.parse(flightJson  
//TICKET 1 ERROR 2  
var flights = JSONObject.flight;
```

In the code array name is **flights** but at line no.72 the array name declared was **flight** var flights =JSONObject.**flight**;

Correction:

```
var flightJson = '{"flights":[{"departure":"Quebec","de  
var JSONObject = JSON.parse(flightJson);  
//TICKET 1 ERROR 2 Correction  
var flights = JSONObject.flights;
```

Error.3



In console when we put the debugging point in for loop for **flights array with index value flight** then in **departureTime, destinationX, destinationY, posX, posY** were undefined.

```
for (flight in flights)
{
    //TICKET 1 ERROR 3
    myPlane = new Plane(flight.departureX, flight.departureY,
```

In array when we call array value in for loop the syntax is

Array_name [index_name].value but in the code there was an error because it was written as **index_name.value** that is incorrect syntax.

Correction:

```
for (flight in flights)
{
    //TICKET 1 ERROR 3 Correction
    myPlane = new Plane(flights[flight].departureX, flights[flight].departureY,
```

Error 4

```
//Ticket 1 Error 4:  
function Plane(posX="", pos="", destinationX="", destinationY="",departureTime=""){  
    this.pos = "img/Plane.jpg";  
}
```

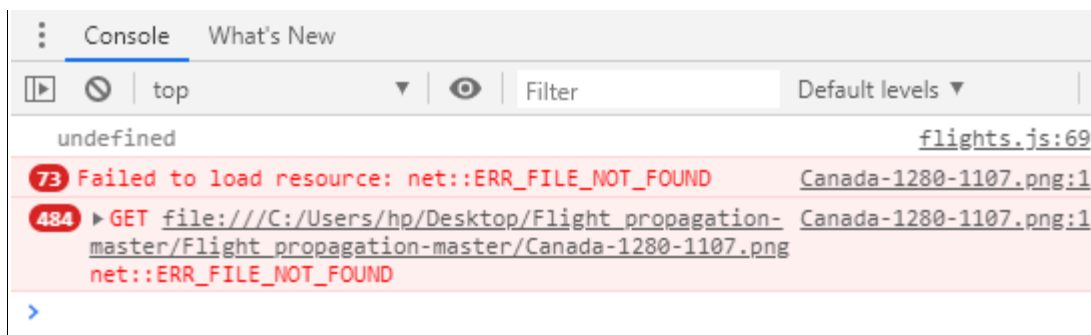
as we have declared it as integers already so now no need to declare all variables as strings,so just remove double quotes.

Correction:

```
//Ticket 1 Error 4 Correction:  
function Plane(posX, pos, destinationX, destinationY,departureTime){  
    this.pos = "img/Plane.jpg";  
}
```

Ticket Web 2: Background image is displayed as blank

Error:



Canada-1280-1107.png ERR_FILE_NOT_FOUND

```
function drawMap(){  
    var map = document.createElement("img");  
    //Ticket2 Error Folder was not mentioned with the name  
    //of image due to this background image was not found.  
    map.setAttribute("src", "Canada-1280-1107.png");  
}
```

Correction:

```
function drawMap(){  
    var map = document.createElement("img");  
    //Ticket2 Correction  
    map.setAttribute("src", "img/Canada-1280-1107.png");  
}
```

Ticket Web 3: The flight is starting a second late than expected.

Error: Here inside for loop, in if condition as `arrflights[i].departureTime < currentTime` means there is one second difference that this condition will fulfill only if current Time will be greater then departureTime, suppose departure Time is 11 then flight will start when `currentTime=12` so one second late.

```
function drawMovement(){
    currentTime++;
    drawMap();

    for(i = 0; i < arrflights.length; i++){

        if(arrflights[i].departureTime < currentTime){
            arrflights[i].updateLocation();
            arrflights[i].draw();
        }
        if(arrflights[i].currentStep > nbSteps){
            arrflights.splice(i, 1);
        }
    }
}
```

Correction : we have to make condition `arrflights[i].departureTime <= currentTime`, means if `departureTime=11` then flight should start at `currentTime=11` not 12.

```
for(i = 0; i < arrflights.length; i++){

    if(arrflights[i].departureTime <= currentTime){
        arrflights[i].updateLocation();
        arrflights[i].draw();
    }
    if(arrflights[i].currentStep > nbSteps){
        arrflights.splice(i, 1);
    }
}
```