

Избираема дисциплина "Програмиране с Node.JS"

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1. Упражнение: Сървър Express Калкулатор

```
var express=require('express');
var app=express();
app.get('/', function(req, res){
  res.send('Hello World!');

});

app.get('/delete/', function(req, res){
  //console.log(result);
  res.setHeader('Access-Control-Allow-Origin', '*');

  try{
    var sqlite3=require("sqlite3").verbose();
    var db=new sqlite3.Database("EMSG.db");
    db.serialize(function(){
      console.log("17");
      db.run("DELETE FROM LOG;", function(){
        console.log("19");
        db.close();
```

```
    res.send(JSON.stringify({status: "OK"}));

  });

});
//db.close();
}catch(error){
  console.log({error : error});
}

});

var logResult=function(result, request){
  //console.log(result);

  try{
    var sqlite3=require("sqlite3").verbose();
    var db=new sqlite3.Database("EMSG.db");
    db.serialize(function(){
      db.run("CREATE TABLE "+
        " if not exists "+
        " LOG("+
        "ID INTEGER PRIMARY KEY AUTOINCREMENT, "+
        " txt text not null, "+
        " request text not null,"+
        " time datetime default current_timestamp"+
        " );"
      );
      var stmt=db.prepare("INSERT INTO LOG(txt, request) VALUES(?, ?)");
      stmt.run(JSON.stringify(result), JSON.stringify(request));
      stmt.finalize();
    });
    db.close();
  }catch(error){
    console.log({error : error});
  }

}
```

```
app.get('/one/', function(req, res){
  var result={};
  try{
    res.setHeader('Content-Type', 'application/json');
    res.setHeader('Access-Control-Allow-Origin', '*');

    var a=parseInt(req.param("a"));
    var b=parseInt(req.param("b"));
    console.log(typeof a);
    console.log(typeof b);

    if(typeof a !=='number' || typeof b !=='number' ){
      result={error: "Wrong format"};
      res.send(JSON.stringify(result));
      return;
    }
    var dejstvie=req.param("dejstvie");

    switch(dejstvie){
      case 'add':
        result={dejstvie: 'plus', res: a+b};

        break;
      case 'sub':
        result={dejstvie: 'minus', res: a-b};
        break;
      case 'mul':
        result={dejstvie: 'po', res: a*b};
        break;
      case 'div':
        result={dejstvie: 'deleno', res: a/b};
        break;
      default:
        result={error: "No such action."};
        break;
    }

  }catch(e){
    result={error: e};
  }

  logResult(result, {a: a, b: b, dejstvie: dejstvie});
  res.send("{\"result\": "+JSON.stringify(result)+"}");
}
```

```
});
app.get('/log/', function(req, res){
  //res.setHeader('Content-Type', 'application/json');
  res.setHeader('Access-Control-Allow-Origin', '*');
  response=[];
  try{
    var sqlite3=require("sqlite3").verbose();
    var db=new sqlite3.Database("EMSG.db");
    db.serialize(function(){
      db.run("CREATE TABLE "+
        " if not exists "+
        " LOG("+
        "ID INTEGER PRIMARY KEY AUTOINCREMENT, "+
        " txt text not null, "+
        " request text not null,"+
        " time datetime default current_timestamp"+
        " );"
      );
    });

  },*/
function(){
  console.log("116");
  db.each("SELECT * from LOG;",
  function(err, row){
    console.log(typeof err);
    console.log(err);
    if(err!= null){
      console.log("119");
      //console.log("problem: "+err);
      response={error: err};
      //console.log(res);

      //res.send(JSON.stringify(response));
      return;
    }
    //console.log(err);
    console.log("131");
    response.push(row);

  }
  },
function(){
  console.log("136");
  console.log(response);
```

```
    console.log("before send");
    res.send(JSON.stringify(response));
    db.close();
  }

  );
  //res.send(JSON.stringify(response));

}

);

}catch(error){
  console.log({error : error});
  res.send(JSON.stringify({error : error}));
}

});
var server=app.listen(8087, function(){
  var host=server.address().address;
  var port=server.address().port;
  console.log("Listening at http://%s:%s", host, port);
});
```

2. Клиентско приложение.

```
<html>
<head>
<title>Елка</title>
<meta charset="utf-8">
<script
  src="https://code.jquery.com/jquery-3.2.1.min.js"
  integrity="sha256-hwg4gsxgFZhOsEEamdOYGBf13FyQuiTwlAQgxVSNgt4="
  crossorigin="anonymous"></script>
<link href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css"
```

```
rel="stylesheet"
integrity="sha384-BVYiSIFeK1dGmJRAkycuHAHRg32OmUcww7on3RYdg4Va+PmSTsz/K68v
bdEjh4u" crossorigin="anonymous">
```

```
<script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"
integrity="sha384-Tc5lQib027qvyjSMfHjOMaLkfuWVxZxUPnCJA7l2mCWNlP9mGCD8wGNlc
PD7Txa" crossorigin="anonymous"></script>
```

```
<style>
input[type="number"] {
  max-width:30%;
  min-width:20%;
}
.label-a{
  min-width:10%;
  max-width:15%;
}
</style>
```

```
</head>
```

```
<body>
```

```
<div class="panel panel-primary">
```

```
<div class="panel-heading">
```

```
Супер яка елка
```

```
</div>
```

```
<div class="panel-body">
```

```
<table class="table table-hover">
```

```
<tr>
```

```
<td ><div class="label-a">a</div></td><td><input type="number" class="form-control"
id="input_a" name="input_a"></td>
```

```
<td ><div class="label-a">b</div></td><td><input type="number" class="form-control"
id="input_b" name="input_b"></td>
```

```
</tr>
```

```
<tr>
```

```
<td colspan="2">
```

```
<select class="form-control" id="dejstvie" name="dejstvie">
```

```
<option value="add">събиране</option>
```

```
<option value="sub">изваждане</option>
```

```
<option value="div">деление</option>
```

```
<option value="mul">умножение</option>
```

```
</select>
```

```
</td>
```

```
<td colspan="2">
```

```
<input class="btn btn-primary" type="button" id="buton4e" name="buton4e"
```

```
value="Калкулирай">
```

```
<input class="btn btn-primary" type="button" id="delete" name="delete" value="Изтрий">
```

```
</td>
```

```
</table>
```

```
</div>
```

```
</div>
```

```
<div class="panel panel-primary">
```

```
<div class="panel-heading">
```

```
Лог на действията
```

```
</div>
```

```
<div class="panel-body" id="logDiv">
```

```
</div>
```

```
<div class="panel-footer" id="logResult">
```

```
</div>
```

```
</div>
```

```
<script>
```

```
function aaaa(){
```

```
    //console.log("Hello.");
```

```
    var val_a=$("#input_a").val();
```

```
    var val_b=$("#input_b").val();
```

```
    var d=$("#dejstvie").val();
```

```
    //console.log({a: val_a, b: val_b, d: d});
```

```
    var url="http://localhost:8087/one/?a="+val_a+"&b="+val_b+"&dejstvie="+d;
```

```
    //alert(url);
```

```
    $.ajax({
```

```
        url: "http://localhost:8087/one/?a="+val_a+"&b="+val_b+"&dejstvie="+d,
```

```
        dataType: "text",
```

```
        //jsonpCallback: "logResults",
```

```
        error: function (request, error) {
```

```
            alert("AJAX Call Error: " + error);
```

```
    },
```

```
    success: function (response) {
```

```
        var resp = JSON.parse(response);
```

```
        //alert(response);
```

```
        //alert(resp.result.res);
```

```
        $("#logResult").html("Result: "+resp.result.res);
```

```
    },
```

```
});
```

```
    //log results
    $.ajax({
        url: "http://localhost:8087/log/",
        dataType: "text",
        //jsonpCallback: "logResults",
        error: function (request, error) {
            alert("AJAX Call Error: " + error);
        },
        success: function (response) {
            $("#logResult").text("");
            var resp = JSON.parse(response);
            var new_text="";
            for(i=0; i<resp.length; i++){
                new_text+="

";
                new_text+="request: "+resp[i].request+"<br/>";
                new_text+="time: "+resp[i].time+"<br/>";
                new_text+="



---



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```



```
$("#logResult").text("");
var res=JSON.parse(response);
if(typeof res.status == "undefined"){
$("#logDiv").html("Кофти");
}else if(res.status=="OK"){
$("#logDiv").html("OK");
}else{
$("#logDiv").html("Проблеми с базата данни");
}
}
```

```
//$("#logResult").text($("#logResult").text()+new_text);
```

```
    },
  });
});
```

```
$("#buton4e").on('click', function(){ aaaa();} );
```

```
});
```

```
</script>
```

```
</body>
```

```
</html>
```

За контакти:

ас. д-р инж. Георги Пашев

e-mail: georgepashev@uni-plovdiv.bg

<http://gpashev.com>