Simple JSON RPC with OpenCPU

The `jsonlite` package is used by OpenCPU to convert between JSON data and R objects. Thereby clients can retrieve R objects, or remotely call R functions using JSON where the function arguments as well as function return value are JSON objects. For example to download the Boston data from the MASS package:

<table>
<thead>
<tr>
<th>Command in R</th>
<th>Example URL on OpenCPU</th>
</tr>
</thead>
<tbody>
<tr>
<td>toJSON(Boston, digits=4)</td>
<td><a href="https://cran.ocpu.io/MASS/data/Boston/json?digits=4">https://cran.ocpu.io/MASS/data/Boston/json?digits=4</a></td>
</tr>
<tr>
<td>toJSON(Boston, dataframe=&quot;col&quot;)</td>
<td><a href="https://cran.ocpu.io/MASS/data/Boston/json?dataframe=col">https://cran.ocpu.io/MASS/data/Boston/json?dataframe=col</a></td>
</tr>
<tr>
<td>toJSON(Boston, pretty=FALSE)</td>
<td><a href="https://cran.ocpu.io/MASS/data/Boston/json?pretty=false">https://cran.ocpu.io/MASS/data/Boston/json?pretty=false</a></td>
</tr>
</tbody>
</table>

To calculate the variance of some the numbers 1:9 in the command line using using `curl`:

```
curl https://cran.ocpu.io/stats/R/var/json -d "x=[1,2,3,4,5,6,7,8,9]"
```

Or equivalently post the entire body in JSON format:

```
curl https://cran.ocpu.io/stats/R/var/json -H "Content-Type: application/json" \  
- d "\{"x":\[1,2,3,4,5,6,7,8,9]\}"
```

Below an example where we call the `melt` function from the reshape2 package using some example rows from the airquality data. Here both input and output consist of a data frame.

```
curl https://cran.ocpu.io/reshape2/R/melt/json -d 'id=\["Month", "Day"]&data=[  
```

Or equivalently:

```
curl https://cran.ocpu.io/reshape2/R/melt/json -H "Content-Type: application/json" \  
- d "{"id" : ["Month", "Day"], "data" : [  
```

This request basically executes the following R code:

```r
mydata <- airquality[1:2,]  
y <- reshape2::melt(data = mydata, id = c("Month", "Day"))  
toJSON(y)
```