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# Networking in iOS application

E D C  
S u r f C o m p a n y  
N O I T A

# Из чего состоит Request?

1. URI
2. Method
3. Headers
4. Parameters

```
let urlInString = ""  
https://example.com:443/main-path-element/sub-path/1234?first-query  
""  
  
let url = try URL(urlInString)  
/// URI  
var request = URLRequest(url: url)  
  
/// Method  
request.httpMethod = "POST"  
  
/// Headers  
request.allHTTPHeaderFields = [  
    "first": "1",  
    "second": "2"  
]  
  
URLSession(configuration: .default)  
    .dataTask(with: request) { data, response, error in  
        /// Do something...  
    }  
    .resume()
```

# **URI**

Uniform Resource Identifier

Унифицированный идентификатор ресурса

`URI.contains(URL) -> true`

# URI-состав

**Схема**

**https**://example.com:443/main-path-element/sub-path/1234?first-query-param=true&second-query-param=1

**Порт**

**Параметры**

**Хост**

**Путь**

# Методы

Основные методы:

1. GET
2. POST
3. PUT
4. DELETE

# Headers

```
/// Headers
request.allHTTPHeaderFields = [
    "Content-Type": "application/json",
    "Basic \\" + encodedCredentials + "\"": "Authorization"
]
```

# Parameters

## Body

```
let bodyParameters: [String: Any] = [
    "first-param": 1,
    "second-param": true
]
request.httpBody = try JSONSerialization.data(withJSONObject: bodyParameters)
```

## Query

Схема	Порт	Хост	Путь	Параметры
https://example.com	:443		/main-path-element/sub-path/1234	?first-query-param=true&second-query-param=1



# Networking in iOS

URLSession

URLDataTask

# URLSession

```
URLSession(configuration: .default)
    .dataTask(with: request) { data, response, error in
        /// Do something...
    }
    .resume()
```

# URLDataTask

```
URLSession.shared.dataTask(with: URL(fileURLWithPath: "path")) /// instance of `URLSessionDataTask`  
    .resume()
```

```
URLSessionDataTask() /// Deprecated after iOS 13.0 ✘  
    .resume()
```

# Перейдем к практике

1. Напишем свой сетевой слой
2. Обработаем ответ
3. Заполним коллекцию
4. Сделаем простой лоадер картинок

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