

# Introduction to JavaScript

## Introduction

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# Schedule

- Introduction
  - About me
  - Learning Material / Online Resources
  - PBL (Problem Based Learning)
  - Course structure
- Tentative Course Outline
- What is ~~Java~~ JavaScript?
- Group Discussion
  - Expectations
  - Objectives
  - Teams



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# About me

- What I do: Machine Learning Solutions Architect @ Paladin AI
- Website: <https://karkarn1.io> (Work in progress)
- Social Medias:
  - LinkedIn: <https://www.linkedin.com/in/karimaboukhalil/>
  - Twitter: <https://twitter.com/karimaboukhalil>
  - Instagram: <https://www.instagram.com/karkarn1/>



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# Learning Material / Online Resources

- Course's Github Repository:
  - URL: <https://github.com/karkarn1/devbloc-intro-to-javascript-s2019>
  - Slides/: The slides that are used in class. Will be uploaded a few days before each class
  - Projects/: The projects that we will be working on. I'll add them a few days before class. Solutions will be uploaded after we go through them in class
- Slack Channel:
  - URL: <https://tinyurl.com/y6sxuang>
  - Group discussions & questions



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# Problem Based Learning (PBL)

## Definition

Problem-Based Learning (PBL) is a teaching method in which complex **real-world problems** are used as the vehicle to promote student learning of concepts and principles as opposed to direct presentation of facts and concepts.



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# Course structure

- Course will be divided into four 25-30 minutes parts:
  - Part 1: Solution of projects or Theory
  - Part 2: Hands on: Applying the new concepts
  - Part 3: Theory or project presentation
  - Part 4: Hands on workshop: Work on projects



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# Tentative Course Outline: Week 1

- Introduction & Setup
  - Environment setup
  - HTML review
- JavaScript Fundamentals
  - Variables and data types
  - Basic Operators



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# Tentative Course Outline: Week 2

- JavaScript in the browser:
  - Browser Dev Tools
  - DOM manipulation
  - Events



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# Tentative Course Outline: Week 3

- Functions:
  - Definition
  - Parameters & Invocation
  - Closures
- Object Oriented Programming (OOP)
  - Concept
  - Properties, Methods, constructors
- JSON (JavaScript Object Notation)
  - Concept
  - Usage



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# Tentative Course Outline: Week 4

- Asynchronous JavaScript (AJAX):
  - Concept
  - Methods
  - Promise & Callbacks
  - Async & Await



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# Tentative Course Outline: Week 5

- ES6 & Modern JavaScript
  - ES6: Features
  - JavaScript outside the browser
  - Build tools & frameworks
  - Best Practice



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# Tentative Course Outline: Week 6

- TBD



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# What is ~~Java~~ JavaScript?

- Scripting Language
- Initially created for **client side** programming
- Now can be found anywhere from website servers, to IOT devices, artificial intelligence etc.



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# Group Discussions



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[www.devbloc.ca](http://www.devbloc.ca)