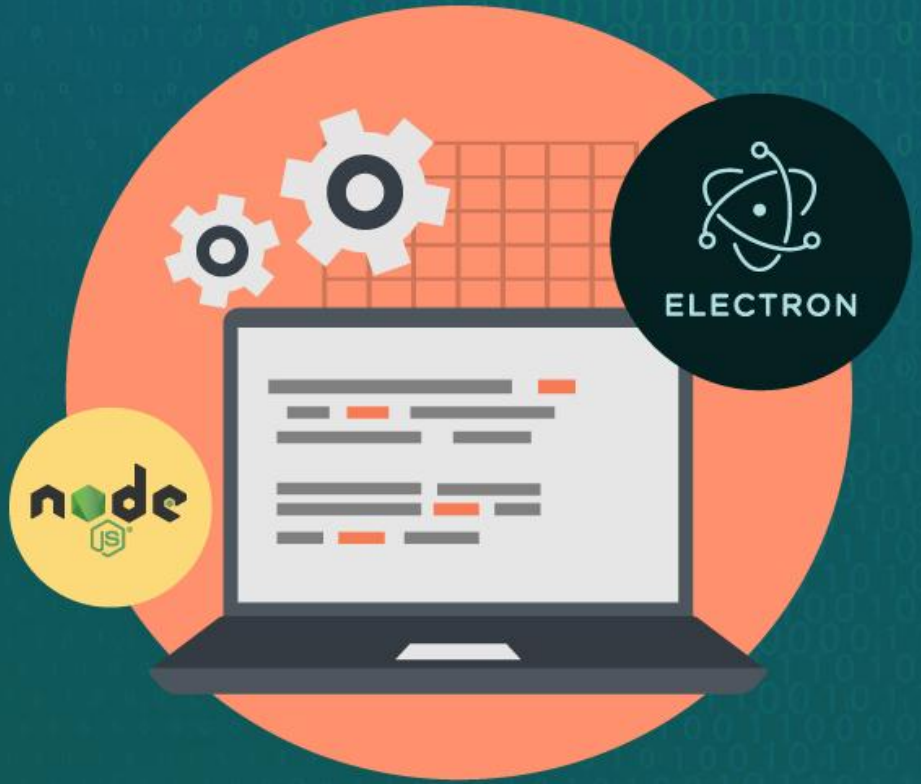

FEB 26

BUILD A DESKTOP TO-DO APP WITH ELECTRON JS

COMMUNITY
INNOVATION
WORKSPACE

ABOUT THE ASSEMBLY

- A Smart lab based out of in5 since December 2014.
- Over 200 Free workshops done.
- Assembly : HACK - Embedded systems, IOT and hardware.
- Assembly : CODE - Software projects - APIs, frameworks, apps.
- Age range: 16 to 60 – Students | Professionals | Entrepreneurs.
- Focus on Smart Technology and Practical applications.
- Forum: members.theassembly.ae

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ABOUT THE ASSEMBLY

FACEBOOK	The Assembly - @MakeSmartThings
TWITTER	@MakeSmartThings
INSTAGRAM	@MakeSmartThings
YOUTUBE	The Assembly

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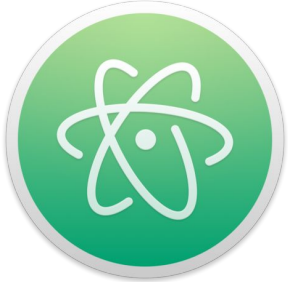
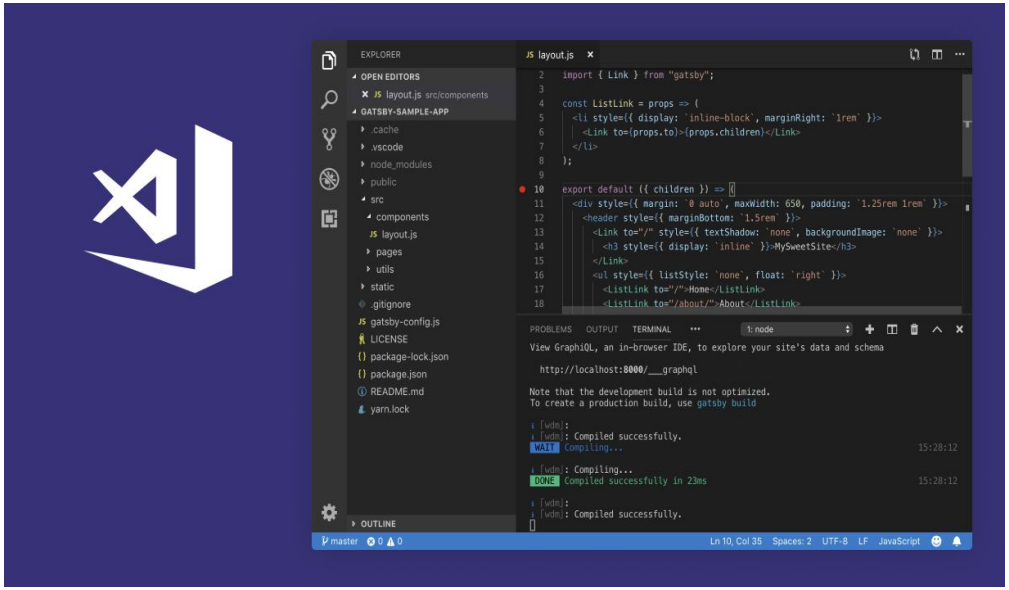
WHAT IS ELECTRON?

- Open source framework to create desktop apps using web dev technology (HTML/CSS/JS)
- Developed by GitHub in 2013 for the Atom code editor project
- Built on top of Chromium and Node.js
- Cross-platform: works with Windows/Linux/Mac
- Can set up application/context menus, auto-update, debug and handle crash reports



APPS MADE USING ELECTRON

https://electronjs.org/apps



NODE JS

- Asynchronous event-driven JavaScript runtime

CHROMIUM

- Google’s open source web browser project.
- Minimalist user interface.

ELECTRON CORE

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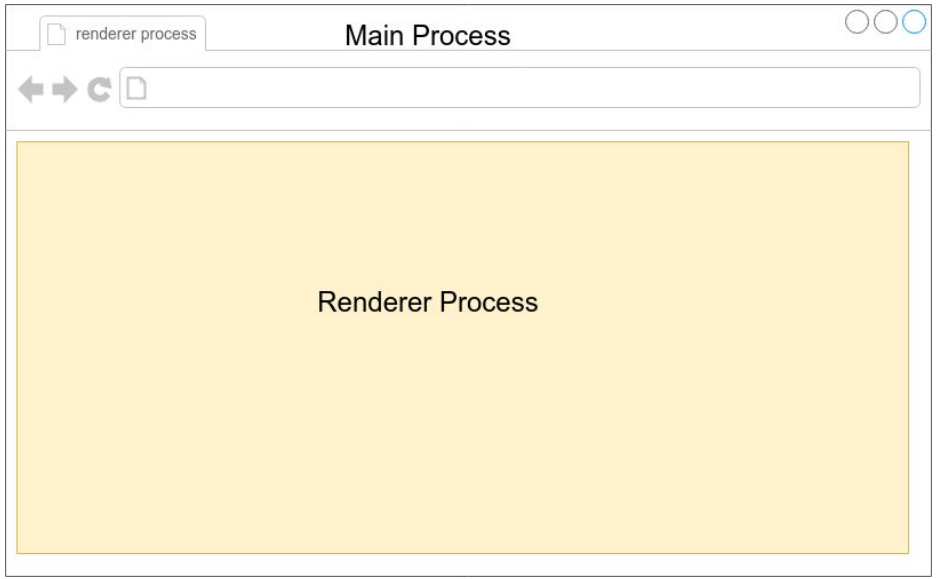
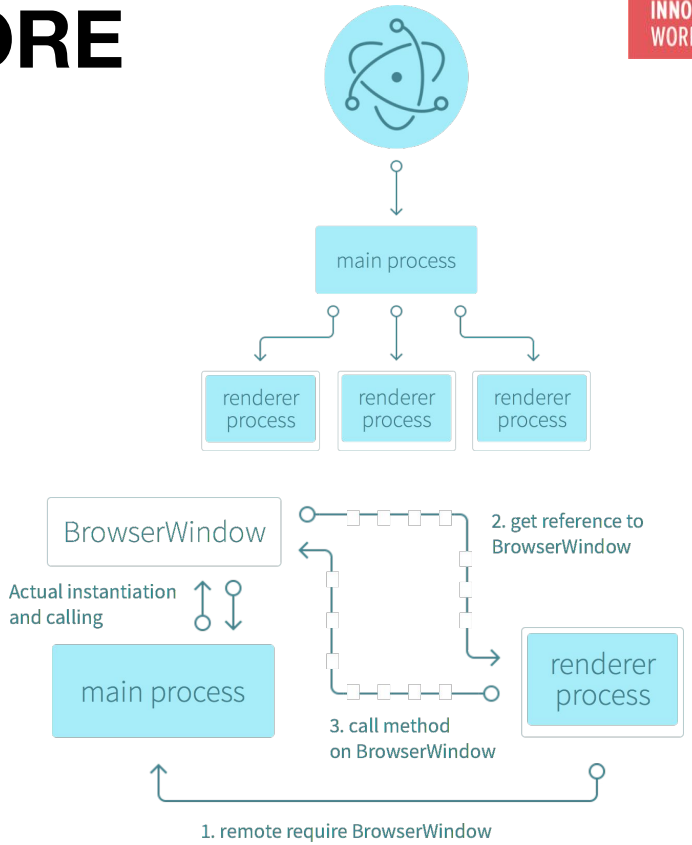
Main Process	Renderer Process
- Only one - Serves as entry point to application - Access to Full Node API - Access to Native Functionality eg; creating menus, notifications, triggering updates	- Each is a new browser window - Multiple allowed - Can be hidden in background - Each browser window has separate process - Some functions only possible by communicating to main process

ELECTRON CORE



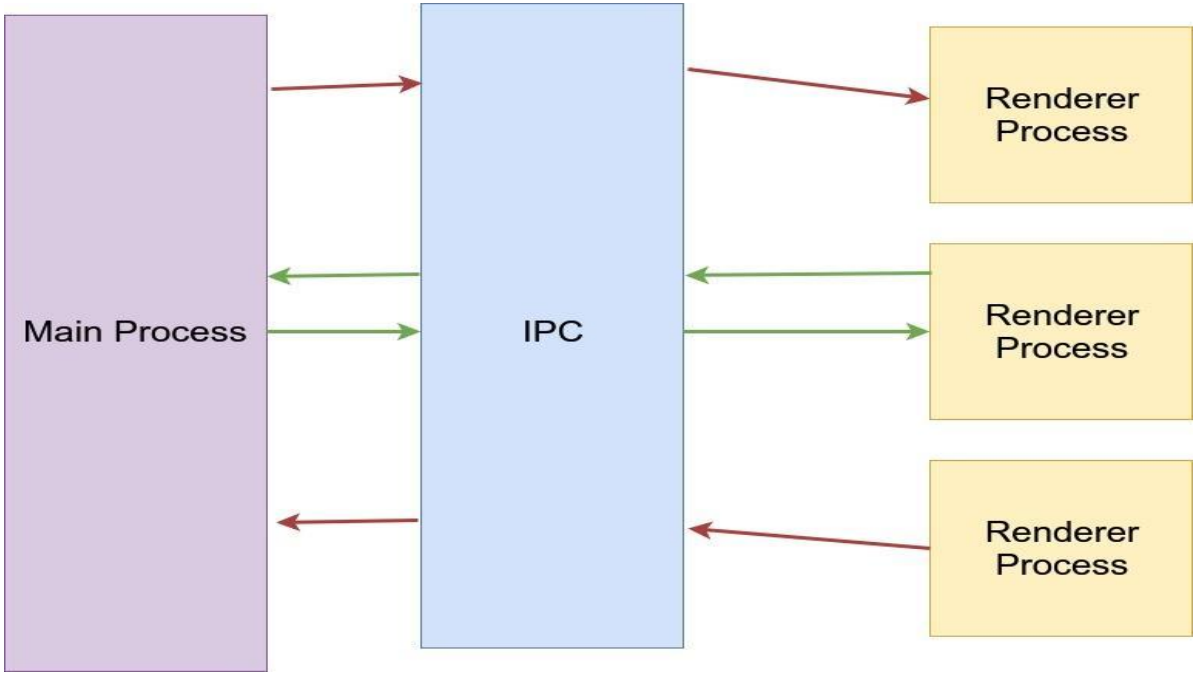
PROCESSES IN CHROMIUM TERMS



EVENTS

- Contained in **app** object
  - ‘will-finish-launching’
  - ‘ready’
  - ‘window-all-closed’
  - ‘before-quit’
  - ‘quit’
  - ‘open-file’
  - ‘browser-window-created’/’browser-window-focus’
  - ‘login’
  - Full list at https://electronjs.org/docs/api/app

INTER PROCESS COMMUNICATION



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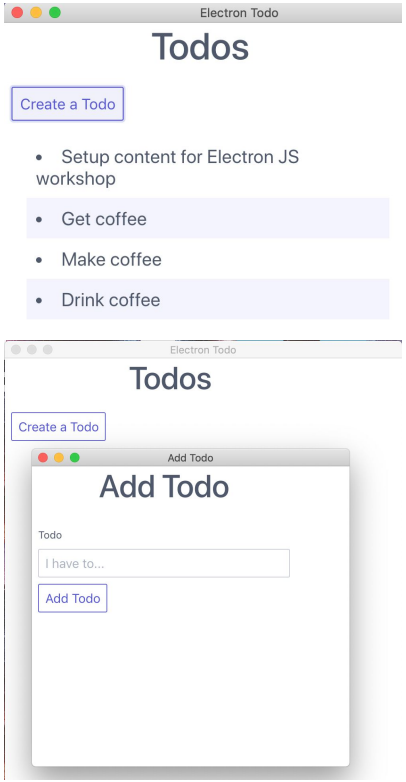
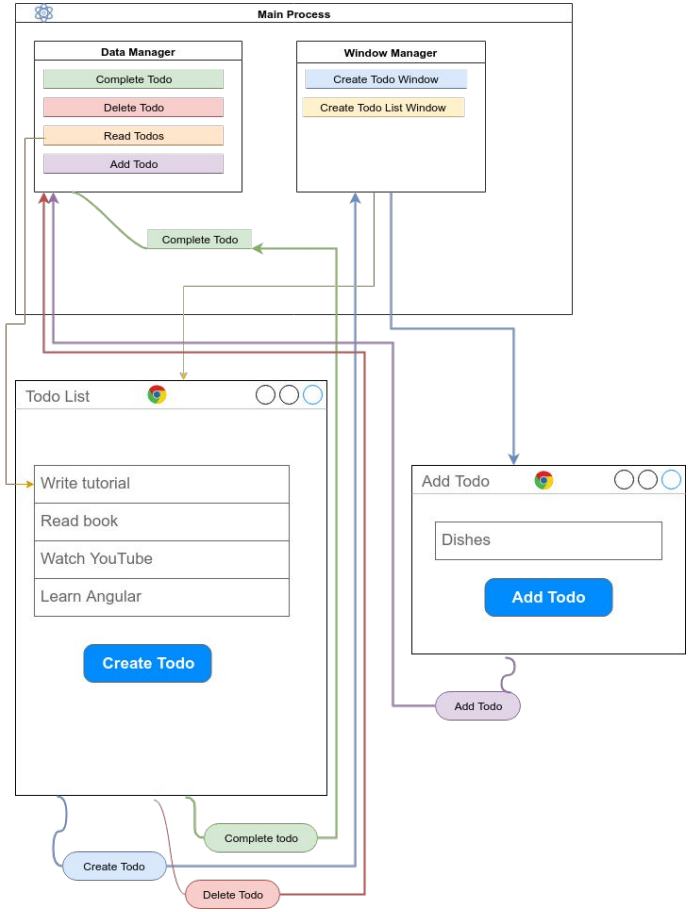
REPOSITORIES

- Electron API Demos
  https://github.com/electron/electron-api-demos
- Our App https://github.com/The-Assembly/ElectronToDoApp
- Acknowledgement - This is based on work originally published on CodeBurst by **CodeDraken**

THE TO DO APP

1. Our app will have a main page that contains a list of task and a create button
2. The create button will open an ‘Add Todo’ window - here we specify our new tasks
3. Once we add the task from the ‘Add Todo’ window, it will close and update main list
4. Tasks can be deleted from the main list by clicking on them
5. Data is persisted even when app is closed




Main Process
Data Manager
Complete Todo
Delete Todo
Read Todos
Add Todo
Window Manager
Create Todo Window
Create Todo List Window
Complete Todo
Todo List
Write tutorial
Read book
Watch YouTube
Learn Angular
Create Todo
Add Todo
Dishes
Add Todo
Add Todo
Complete todo
Create Todo
Delete Todo

Let's get started.