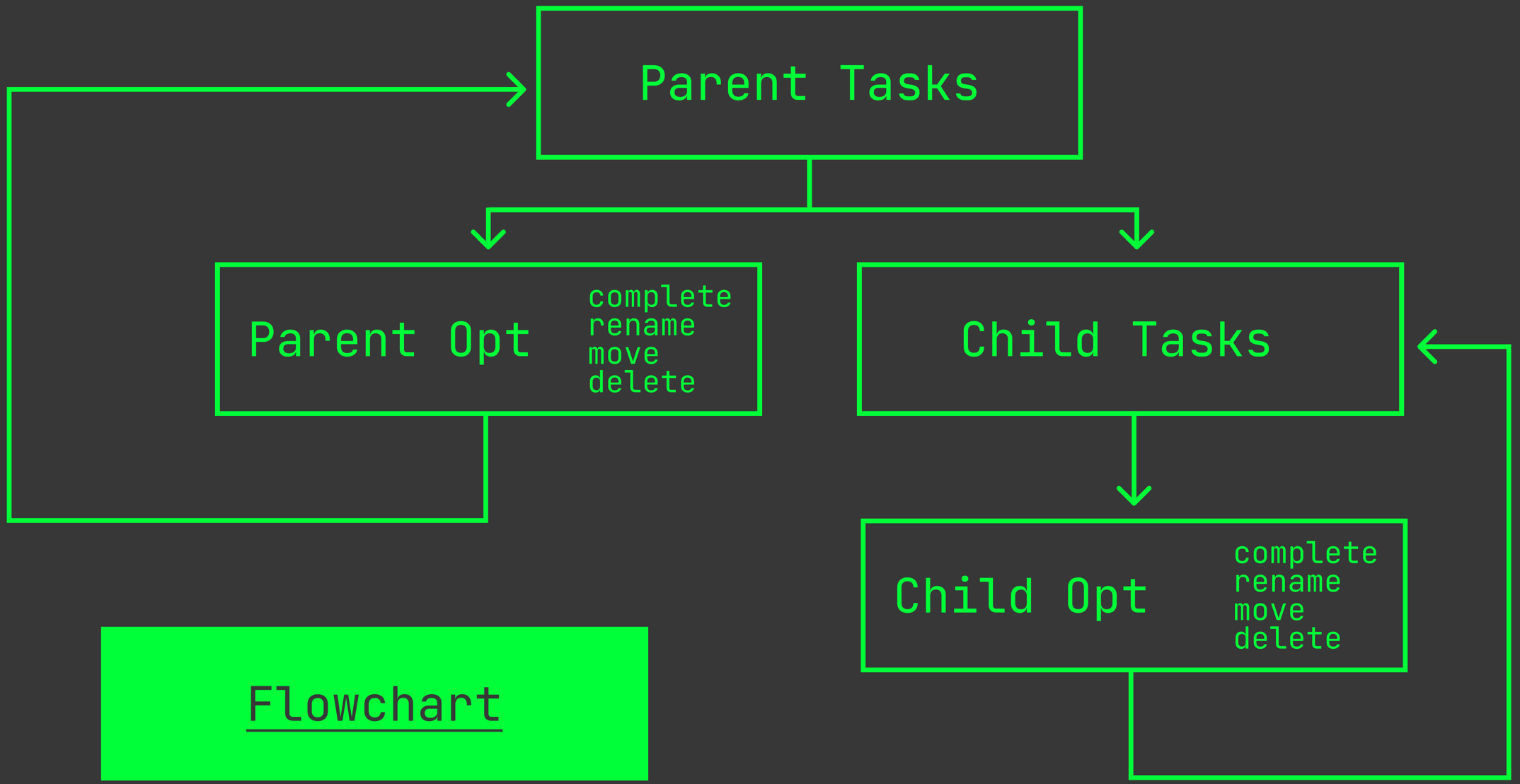
~ T1A3 - Terminal Application

→ by Stephen Smith

→ ~ Organisational Task Tracker [OTTR]

→ Goals:
    → track project specific tasks
    → based in repository
        → embrace cmd line workflow
    → fully functional from cmd line arguments...
    → optional user interface

→ ~ Structure


Parent Tasks
Parent Opt
complete
rename
move
delete
Child Tasks
Child Opt
complete
rename
move
delete
Flowchart

→ ~ Features

→ Add tasks & add children tasks
  → Check / uncheck tasks
  → Rename tasks
  → Re-arrange tasks
  → Delete tasks
  → ID based!!!
→ Auto-save and auto-load task list
→ Do all of the above from command line

```
→ ~
→ ~
→ ~
→ ~    d8888                      888       888          888 888      888    888                                                  888
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     d88P888                      888  d8b  888          888 888      888    888                                                  888
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            888      888                                                                                    888
            888      888                                                                                Y8b d88P
                                                                                                         "Y88P"
```

→ ~ List Class

```
def initialize
    @tasks = []
end
```

```
def add_task(description)
  @tasks.push({
                'id' => unique_id,
                'description' => description,
                'is_complete?' => false,
                'is_parent?' => false,
                'is_selected?' => false,
                'child_tasks' => []
              })
end
```

```
def unique_id
  if @tasks.length > 0
    task_ids.max + 1
  else
    1
  end
end
```

```
def select_task(id)
  @tasks.each { |t| t['id'] == id ? t['is_selected?'] = true : nil }
end
```

```
def rename_task(name)
  @tasks[selected_task]['description'] = name
end
```

```
def reopen_task
  @tasks[selected_task]['is_complete?'] = false
end
```

```
def deselect_all_tasks
  @tasks.each do |t|
    t['is_selected?'] = false
    t['child_tasks'].each do |ct|
      ct['is_selected_child?'] = false
    end
  end
end
```

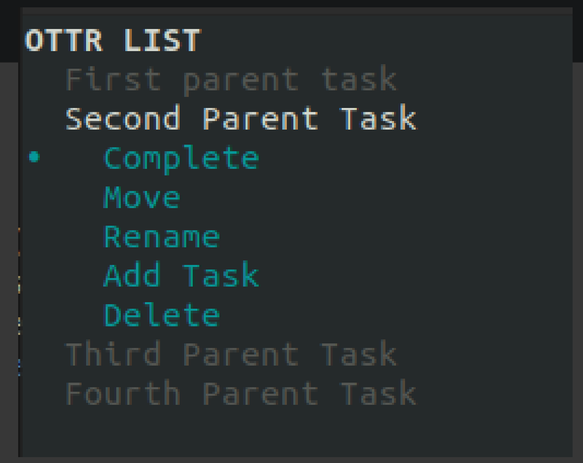
→ ~ Menu Class < SubMenu Class

```ruby
@PARENT_DEFAULTS = [
  { '  Complete'.colorize(:cyan) => :COMPLETE },
  { '  Move'.colorize(:cyan) => :MOVE },
  { '  Rename'.colorize(:cyan) => :RENAME },
  { '  Add Task'.colorize(:cyan) => :ADD },
  { '  Delete'.colorize(:cyan) => :DELETE }
]
@CHILD_DEFAULTS = [
  { '  Complete'.colorize(:cyan) => :COMPLETE },
  { '  Move'.colorize(:cyan) => :MOVE },
  { '  Rename'.colorize(:cyan) => :RENAME },
  { '  Delete'.colorize(:cyan) => :DELETE }
]
```

```ruby
@options = []
@loads = 0
```

```ruby
def populate_options(tasks, list)
  @options = tasks
  @options.insert(list.selected_task + 1, @DEFAULTS).flatten!
end
```

```ruby
def construct(list)
  system('cls') || system('clear')
  TTY::Prompt.new.select('OTTR LIST'.bold, symbols: { marker: '•', cross: ' ' }, active_color: :cyan)
do |menu|
    menu.default list.selected_task + list.selected_child_task + 2
    menu.per_page 20
    menu.help ''
    menu.choices @options
  end
end
```



→ ~ JSONHandler Module

```ruby
module JSONHandler
  def load_json(file)
    File.read(file)
  end

  def write_json(file, data)
    File.write(file, JSON.dump(data))
  end

  def json_array(file)
    JSON.parse!(load_json(file))
  end
end
```

→ ~ ProcessARGV Module

```ruby
module ProcessARGV
  @@init_status = File.exist?('./.ottr.json')

  def initialize_ottr
    if @@init_status == true
      puts 'already initialized'
    else
      List.new.write_tasks
      puts 'ottr initialized'
    end
  end

  def self.init_status
    @@init_status
  end
end
```

→ ~ RSPEC

```
describe List do
  context "When a list object's tasks contain 3 items:" do
    before(:each) do
      @list = List.new
      @list.instance_variable_set(:@tasks, [{ 'id' => 6,
                                              'description' => 'Do the laundry',
                                              'is_complete?' => false,
                                              'is_parent?' => false,
                                              'is_selected?' => false },
                                            {
                                              'id' => 8,
                                              'description' => 'Go for walk',
                                              'is_complete?' => false,
                                              'is_parent?' => false,
                                              'is_selected?' => false
                                            },
                                            {
                                              'id' => 4,
                                              'description' => 'Wash the car',
                                              'is_complete?' => false,
                                              'is_parent?' => false,
                                              'is_selected?' => false
                                            }])
    end
```

```
it 'should return array of hashes containing {task_description => id}' do
  expect(@list.list_task_descriptions).to eq([
                                               { 'Do the laundry' => 6 },
                                               { 'Go for walk' => 8 },
                                               { 'Wash the car' => 4 }
                                             ])
end
```

```
it 'it should return array of task ids' do
  expect(@list.task_ids).to eq([6, 8, 4])
end

it 'it should return a unique id that is 1 larger than the largest id' do
  expect(@list.unique_id).to eq(9)
end

it 'it should take two ids and swap their position in task list' do
  @list.move_task(4, 8)
  expect(@list.task_ids).to eq([6, 4, 8])
end
}
```

→ ~ Ethical
  → Colors?

→ ~ Challenges

  → Sub menus and child lists get repetitive
  → Rspec & TDD (loading external files)
  → Brainstorming = messy

→ ~ Gems

  → TTY Prompt → TTY Platform
  → Colorize → TTY Progress Bar

→ Thank you :]