LESSON 10

app.rb

```
# Gemfile
gem "httparty", "~> 0.22"
$ bundle install
```

Ruby

Gems & Bundler

Learn it all @MyWebUniversity



A FREE MYWEBUNIVERSITY COURSE

RUBY PROGRAMMING

LESSON 10

Gems, Bundler and Rake

RubyGems, the Gemfile, bundle install, Gemfile.lock, Rake tasks and project layout

RubyGems

terminal

```
$ gem install colorize
Successfully installed colorize-1.1.0
$ gem list
$ ruby -e 'require "colorize"; puts "Salaam".green'
```

- A gem is a packaged Ruby library. rubygems dot org hosts more than one hundred and eighty …
- gem install adds one to your system, and require loads it in your code.

01

Bundler and the Gemfile

Gemfile

```
source "https://rubygems.org"

ruby "3.3.5"
gem "httparty", "~> 0.22"
gem "colorize"

group :test do
  gem "minitest"
end
```

- Real projects list their gems in a Gemfile. bundle install installs exactly those gems and …
- Commit both files, and everyone on the team gets the same versions. Run your code with …

02

Version Constraints

In Gemfile	Allows
`"~> 0.22"`	`>= 0.22, < 1.0`
`"~> 2.1.3"`	`>= 2.1.3, < 2.2`
`">= 1.0"`	any newer
`"1.4.0"`	exactly this

- The pessimistic operator, tilde greater-than, allows safe updates. Tilde greater-than zero …
- bundle update upgrades gems within those limits, and bundle outdated shows what is behind.

03

Rake Tasks

Rakefile

```ruby
require "rake/testtask"

Rake::TestTask.new(:test) { |t| t.pattern = "test/**/*_test.rb" }

desc "Build the report"
task :report do
  ruby "bin/report.rb data/students.csv"
end

task default: :test
# $ rake report      $ rake -T
```

- Rake is Ruby's task runner, like make. Write tasks in a Rakefile in plain Ruby, and run ...
- rake dash T lists every task with its description.

04

Project Layout

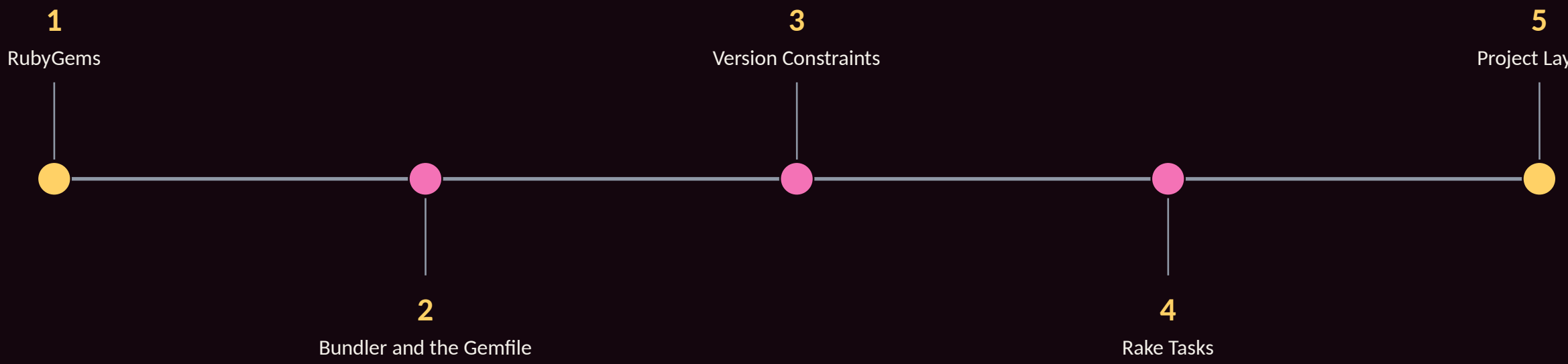
terminal

```
gradebook/
├── Gemfile  Gemfile.lock  Rakefile
├── bin/report.rb
├── lib/gradebook.rb           require_relative "gradebook/student"
├── lib/gradebook/student.rb
└── test/student_test.rb
```

- A typical Ruby project has lib for code, bin for executable scripts, and test or spec for …
- require_relative loads your own files by path. bundle gem name creates this layout for a …

05

Lesson Map


1
RubyGems
2
Bundler and the Gemfile
3
Version Constraints
4
Rake Tasks
5
Project Layout

Sources and Further Reading

terminal

```
$ gem install colorize
Successfully installed colorize-1.1.0
$ gem list
$ ruby -e 'require "colorize"; puts "Salaam".green'
```

RUBY PROGRAMMING · 10

In Gemfile	Allows
"~> 0.22"	>= 0.22, < 1.0
"~> 2.1.3"	>= 2.1.3, < 2.2
">= 1.0"	any newer
"1.4.0"	exactly this

Thank you for watching

MyWebUniversity.com

Free technical education since 2000 — English and Dari

@MyWebUniversity · @MyWebUniversity-Dari