VisionAI

Documentation for VisionAI toolkit.

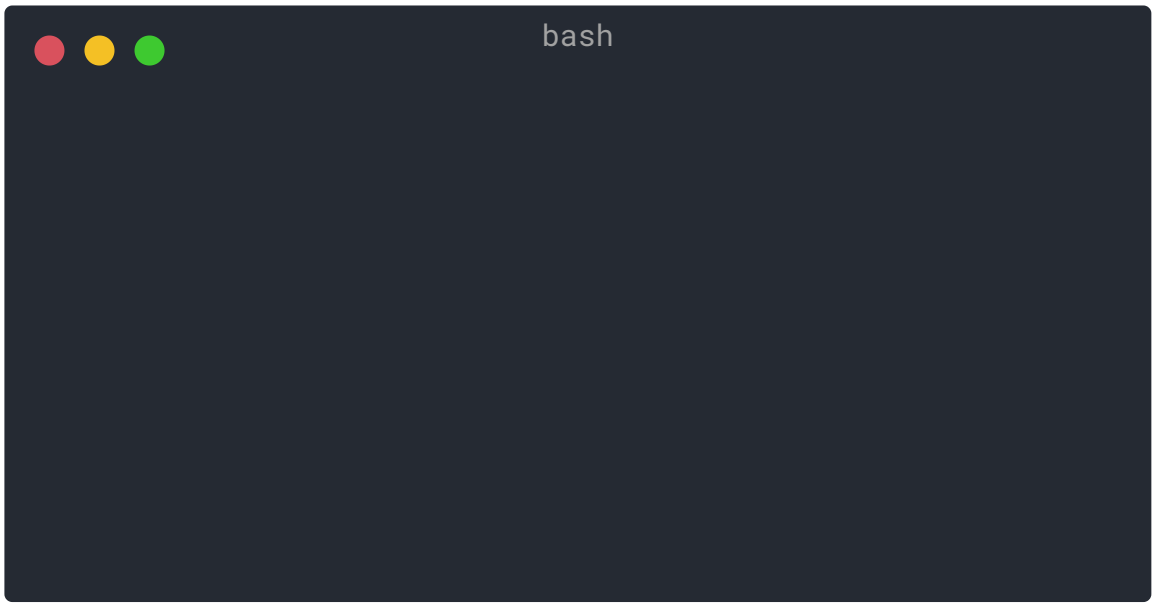
Overview

VisionAI provides a set of command line utilities for you to manage different Vision AI scenarios that have been pre-developed and pre-tested. **VisionAI** focuses on workplace health and safety models - and majority of the models you see here have been developed with that in mind.

These are *production-ready* model trained from open-source and academic datasets. We are continuously working on new scenarios - and our current scenario repo consists of over 60 scenarios that are listed here. They are developed with the intent of being easy-to-use for business. The framework also supports a whole bunch of custom scenarios.

Install **VisionAI**

Install **VisionAI** application through `PyPI`. There are other options available for install - including a Docker container option. These are detailed in installation section.



Deploy to **Azure**

Deploy a fully configured and tested solution directly from Azure Marketplace. **VisionAI** runs computer vision models, most of which run orders of magnitude faster if executed on a GPU machine. Our Azure Marketplace offer **VisionAI Community Edition** is available through Azure Marketplace here (TODO). The community edition deploys a fully configured Virtual Machine with the recommended hardware and software options. Get more details here.

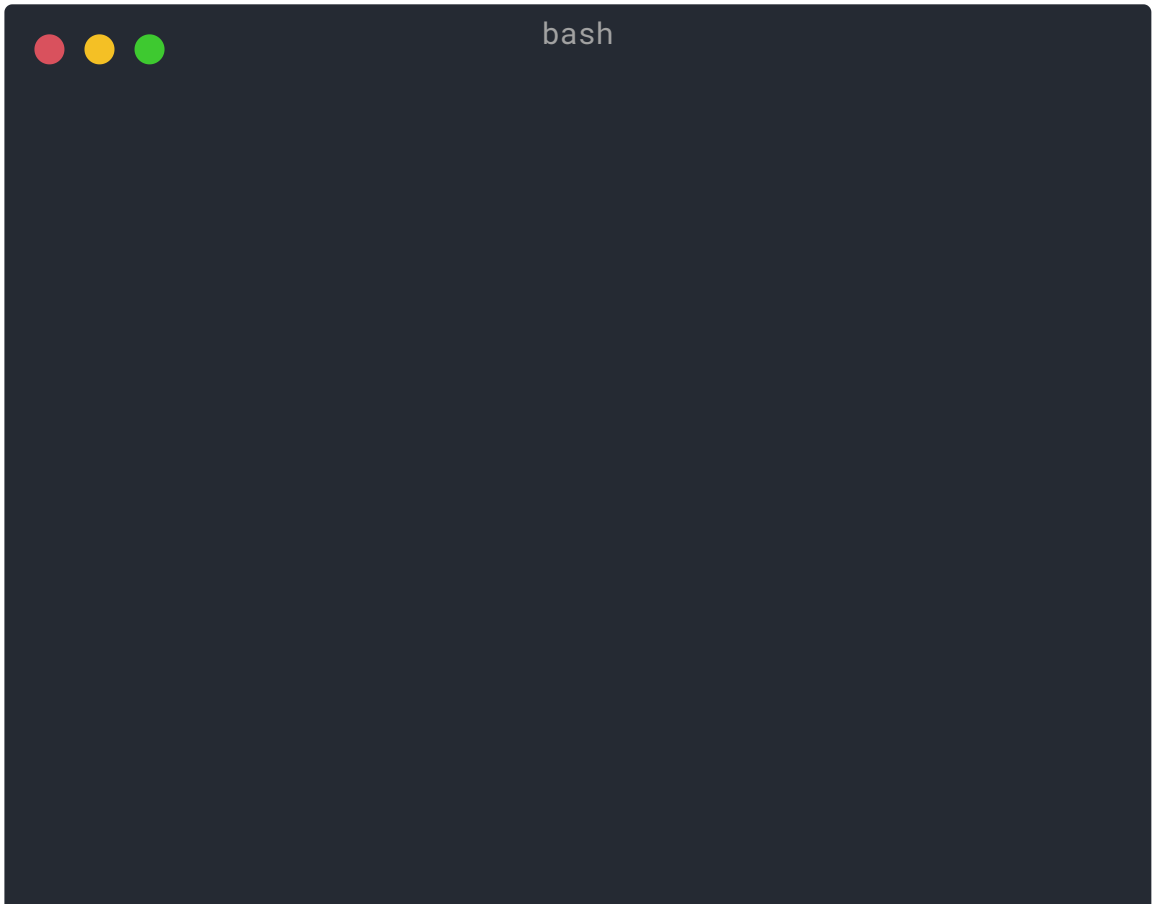
Deploy to Azure

- TODO: Point to ARM template that needs to be deployed (using these instructions and here is an example JSON file).

List available **Scenarios**

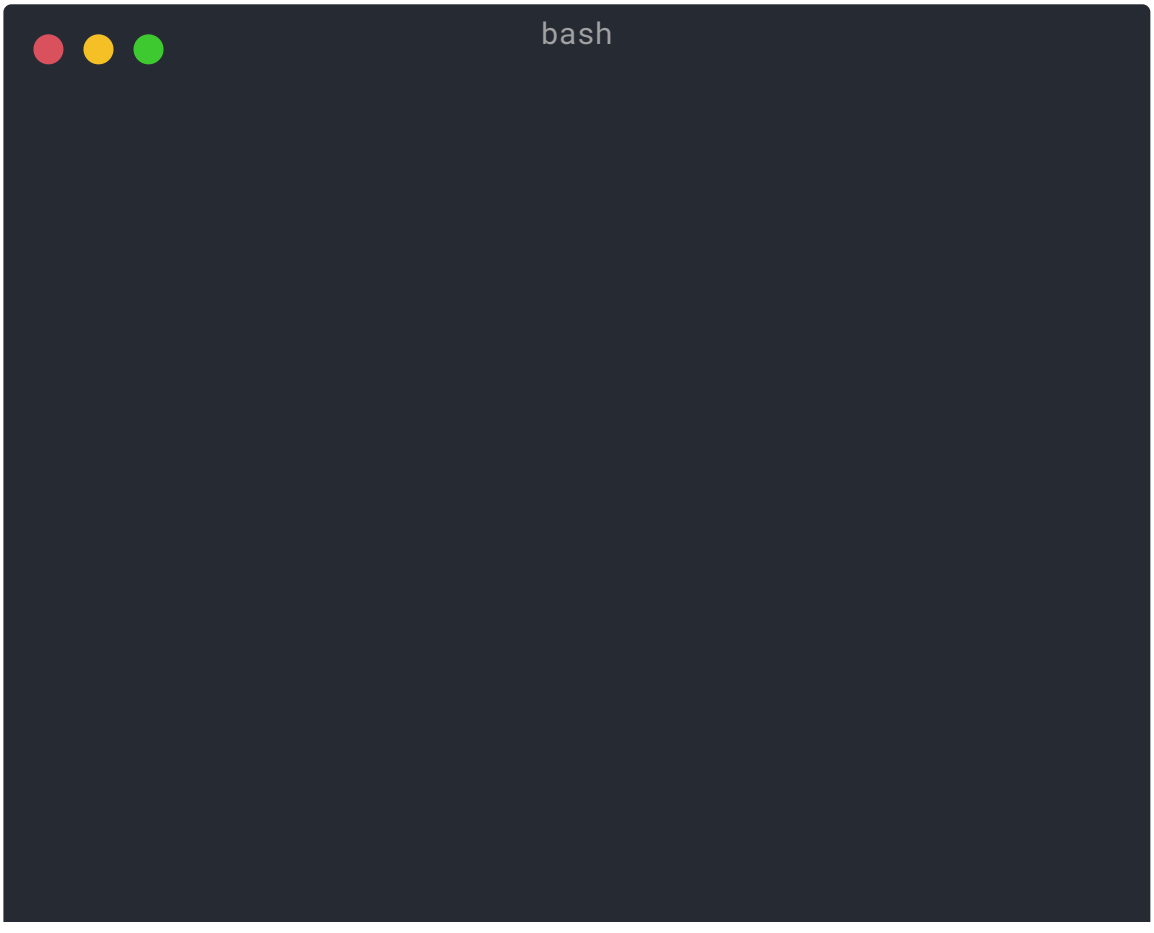
VisionAI is organized in terms of scenarios. Consider each scenario as being a business use-case, that is solved by a combination of Machine Learning models and an inference algorithm. For example *Warn me when max occupancy of this area exceeds 80 people* is a business scenario, where as the *People detection* is an ML model.

VisionAI supports 60 scenarios currently and more are being added continuously. Our current focus is on Workplace Safety scenarios. Please contact us if a scenario you need is not present in our repo and we will look into it.



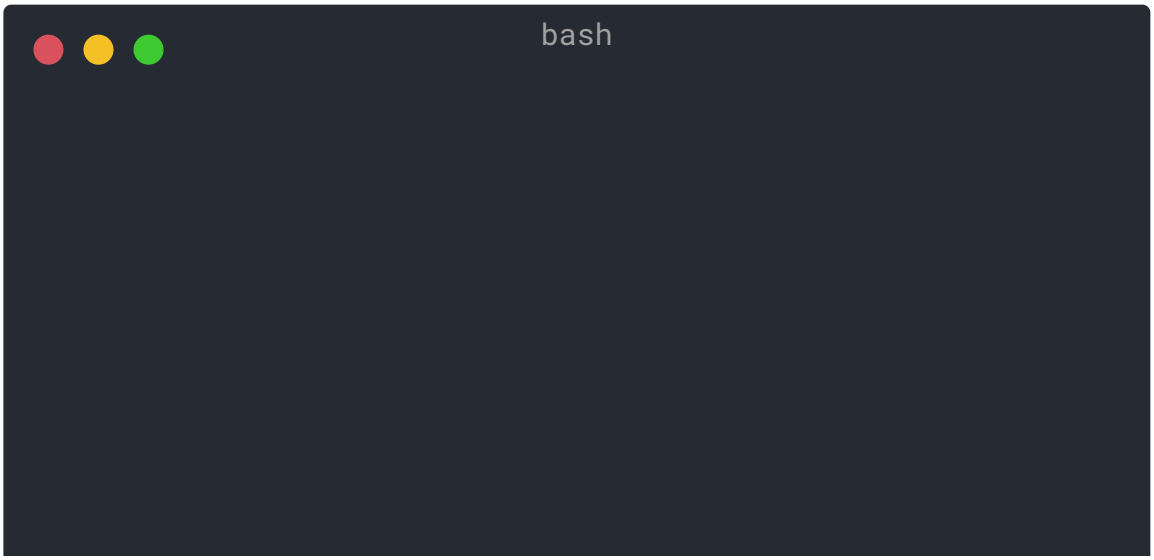
Get details for a **Scenario**

You can get details about a scenario using `visionai scenario details` command. Specify the scenario you want additional details for. The details of a scenario include the dataset size, model accuracy metrics,



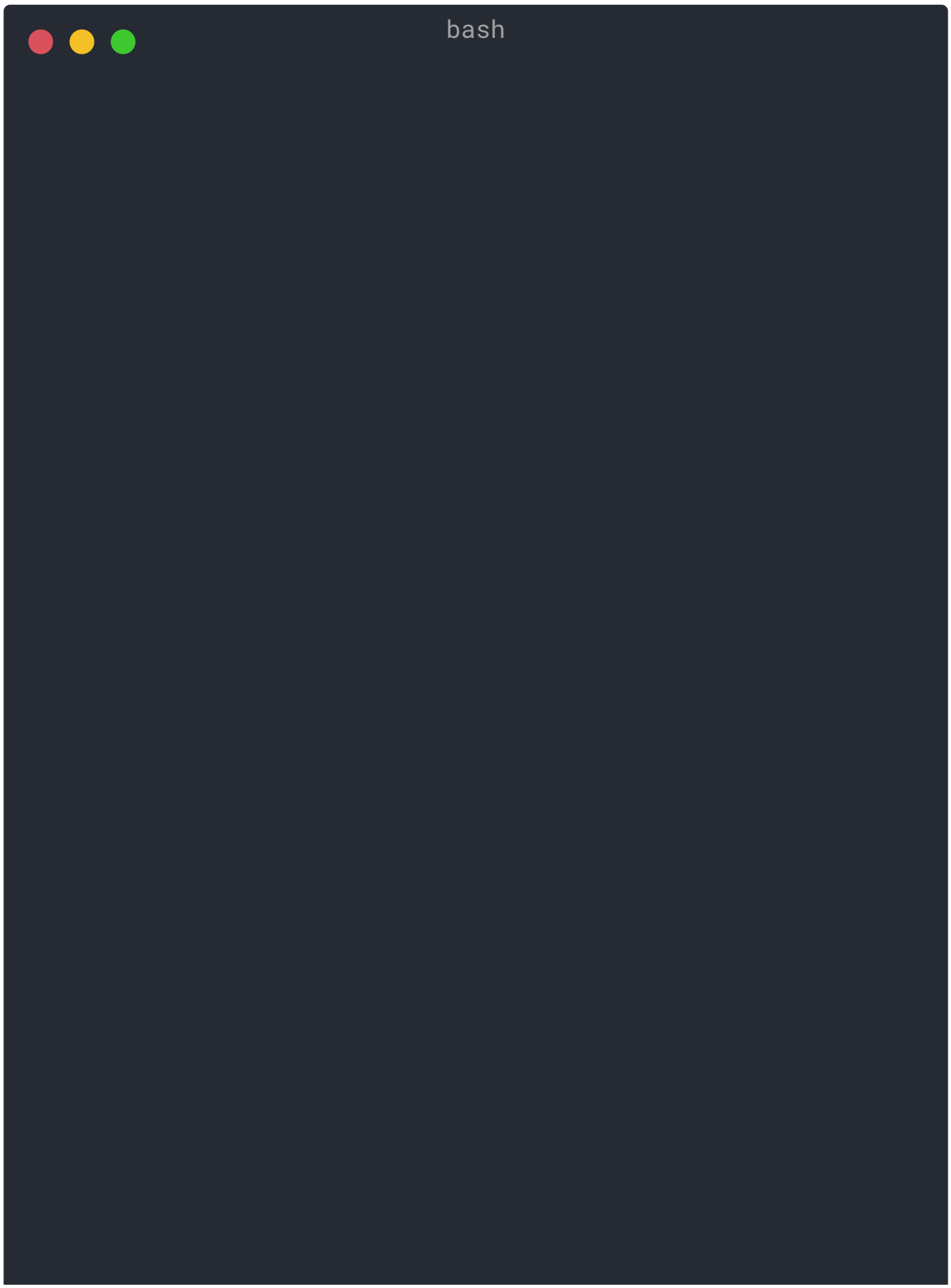
Run a **Scenario**

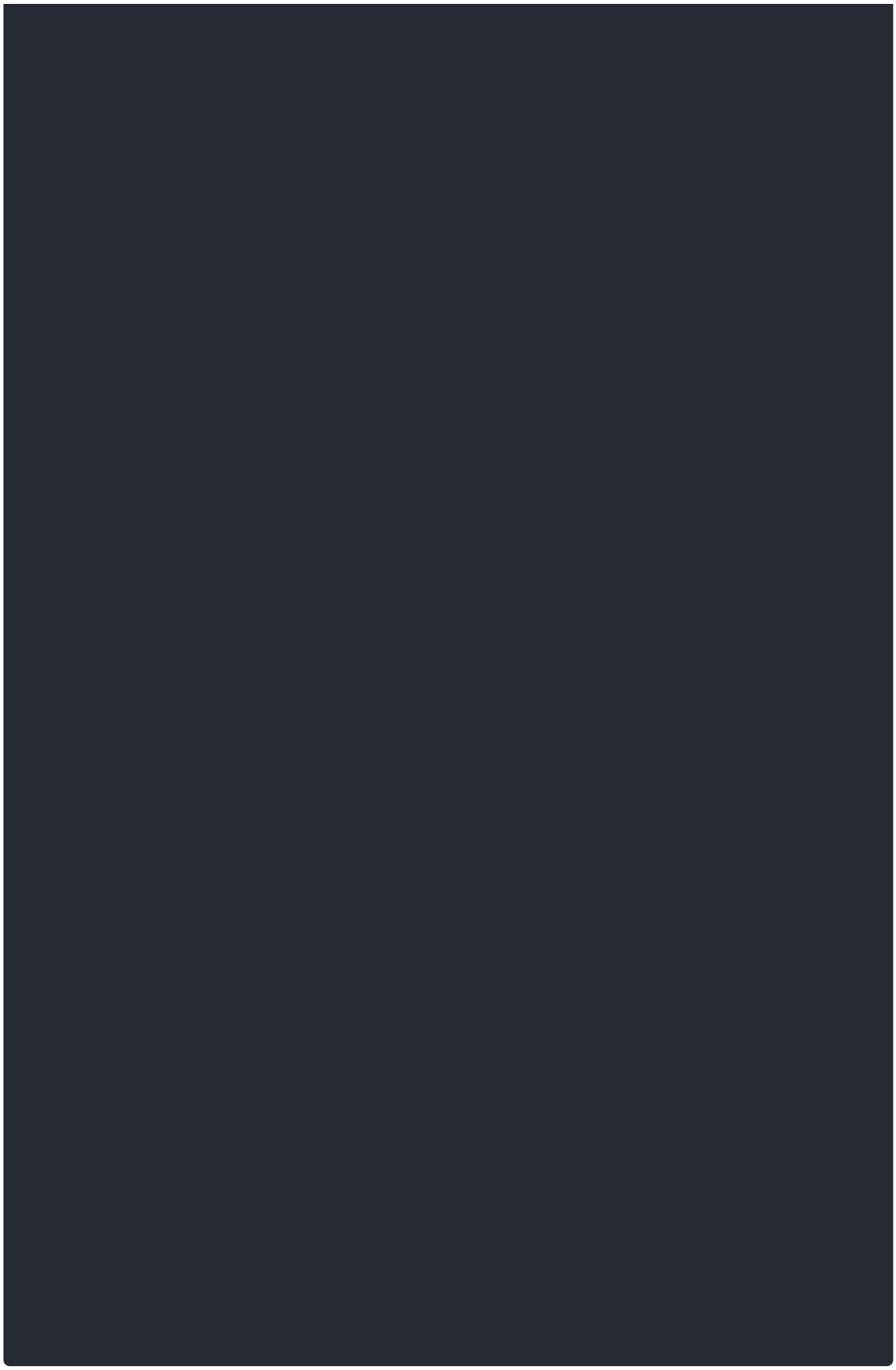
Use `visionai run` command to run a scenario. In its simplest sense, you can run a single scenario on your web-cam. In a more complex use-case, you can specify a pipeline of scenarios, configure notification logic for each scenario, timings for each scenario etc.



Get **help** on commands

You can get more help on any command by adding --help at the end of the command. For example, if you want to get details about pipeline commands, you can run the following commands.





Next **steps**

Congratulations! You have successfully run the first scenario. Now go through Tutorials to learn about how to run multiple scnearios, how to configure each scenario for the events you need, how to set up the dependencies etc.

Or you can also go through our scenarios page to explore the different scenarios available and their model details. If you have a need for a scenario to be implemented, do not hesitate to submit a request.