VanGo Analysis

Before beginning the discussion about the metrics of the programs in VanGo, a few words about the tool used to determine these tools.
JSHint was the tool that was used. This program flags what it calls “suspicious usage in programs written in JavaScript.“ http://jshint.com/docs/
JSHint is not a random analysis tool. It is a well respected and used tool. Several companies that are listed as using JSHint are Mozilla, Wikipedia, Facebook, and Twitter.
http://jshint.com/about/

When being used for this analysis, the in browser application was used. This can be found at http://jshint.com/

The following seven JavaScript programs were run through JShint: CalendarScheduler.gs, EmailNotification.gs, Main.gs, Student.gs, StudentSchedule.gs, TableSchedule.gs, and Util.gs.

The output for CalendarScheduler.gs is

- There are 9 functions in this file
- Function with the largest signature takes 5 arguments, while the median is 1
- Largest function has 21 statements in it, while the median is 11
- The most complex function has a cyclomatic complexity value of 6 while the median is 2

There is also a list of 34 warnings, these warnings represent instances of where the program breaks away from JavaScript programming conventions.

The output for EmailNotification.gs is

- There are 3 functions in this file
- Function with the largest signature takes 2 arguments, while the median is 1
- Largest function has 15 statements in it, while the median is 8
- The most complex function has a cyclomatic complexity value of 4, while the median is 2

The list of warnings contains 18 warnings, and there are eight undefined variables: MailApp, Status, API, Training, Shop, Blog, About, and Pricing.

The output for Main.gs is

- There is only one function in this file
- It takes no arguments
- This function contains 5 statements
- Cyclomatic complexity for this function is 1

There is a list of four undefined variables, CalendarApp, Student, Logger, and CalendarScheduler. There is also one unused variable, main.

The ouput for Student.gs is

- There are 2 functions in this file
- Function with the largest signature take 1 arguments, while the median is 0.5

- Largest function has 19 statements in it, while the median is 12
- The most complex function has a cyclomatic complexity value of 3 while the median is 2.5

There is a list of three warnings. There are two undefined variables, SpreadsheetApp and StudentSchedule.

The output for StudentSchedule.gs is

- There are 3 functions in this file
- Function with the largest signature take 1 arguments, while the median is 1
- Largest function has 16 statements in it, while the median is 8
- The most complex function has a cyclomatic complexity value of 3 while the median is 2

There is a list of 6 warnings.

The output for Table.gs is

- There are 2 functions in this file
- Function with the largest signature take 2 arguments, while the median is 1
- Largest function has 41 statements in it, while the median is 22
- The most complex function has a cyclomatic complexity value of 2 while the median is 5.5

There is a list of seven warnings. There are two unused variables.

The output for deleteAllEvents.gs is

- There are 5 functions in this file
- Function with the largest signature take 0 arguments, while the median is 0
- Largest function has 38 statements in it, while the median is 10
- The most complex function has a cyclomatic complexity value of 9 while the median is 3

There is a list of four warnings. There are seven undefined variables. There are six unused variables.

	CalendarScheduler.gs	EmailNotification.gs	Main.gs	Student.gs	StudentSchedule.gs	TableSchedule.gs	Util.gs
Functions	9	3	1	3	4	2	5
Largest signature	5	2	0	1	1	2	0
Median signature	1	1	0	0.5	1	1	0
Statements in Largest function	21	15	5	19	16	41	38
Median number of statements	11	8	5	12	8	22	10
Highest Cyclomatic complexity	6	4	1	3	3	2	9
Median Cyclomatic Complexity	2	2	1	2.5	2	5.5	3