

Operators Query Tool Testing Coverage

The coverage was checked for the operator web app using the python coverage tool. Currently, we had only considered integration testing, so the coverage for the views was rather poor.

Name	Stmts	Miss	Cover	Missing
manage.py	12	2	83%	11-12
operators\admin.py	1	0	100%	
operators\forms.py	15	0	100%	
operators\models.py	2	0	100%	
operators\tests.py	68	26	62%	88, 93-95, 100-112, 118-127, 137-139, 149-152
operators\urls.py	4	0	100%	
operators\views.py	153	136	11%	21, 31, 41-57, 67, 77-109, 119-147, 157-256, 261, 266-274
operators_query_tool__init__.py	0	0	100%	
operators_query_tool\settings.py	33	0	100%	
operators_query_tool\urls.py	7	0	100%	
TOTAL	295	164	44%	

Obviously the views.py file has a lot of room for improvement. I decided to test the lines that were missing which are used to render the templates. I looked at each view and tested that it rendered the correct template at the correct URL. This improved the views.py test coverage dramatically.

Name	Stmts	Miss	Cover	Missing
manage.py	12	2	83%	11-12
operators\admin.py	1	0	100%	
operators\forms.py	15	0	100%	
operators\models.py	2	0	100%	
operators\tests.py	106	26	75%	123, 128-130, 135-147, 153-162, 172-174, 184-187
operators\urls.py	4	0	100%	
operators\views.py	153	35	77%	45-53, 104-107, 125-143, 252-254, 261, 266-274
operators_query_tool__init__.py	0	0	100%	
operators_query_tool\settings.py	33	0	100%	
operators_query_tool\urls.py	7	0	100%	
TOTAL	333	63	81%	

I do not have any control over the manage.py file, so I do not need to perform any tests on it. I also feel like it would be overkill to test the tests.py file. Therefore, I decided to keep focusing on improving the views.py coverage. The next area to try and test was the forms, boosting the coverage greatly.

Name	Stmts	Miss	Cover	Missing
manage.py	12	2	83%	11-12
operators\admin.py	1	0	100%	
operators\forms.py	15	0	100%	
operators\models.py	2	0	100%	
operators\tests.py	115	25	78%	142-144, 149-161, 167-176, 186-188, 198-201
operators\urls.py	4	0	100%	
operators\views.py	153	16	90%	51, 53, 104-107, 252-254, 261, 266-274
operators_query_tool__init__.py	0	0	100%	
operators_query_tool\settings.py	33	0	100%	
operators_query_tool\urls.py	7	0	100%	
TOTAL	342	43	87%	

By the time I reached 90% coverage for the views, I thought it was best not to try and achieve anymore. I did not want to begin writing more tests to suit the code, instead of writing code to suit the tests. Therefore, I believe that 87% test coverage overall is a good effort. The majority of areas where we are missing tests are from the manage.py and tests.py files, which we have no control over.