Item 354

git_comments:

1. TODO(BEAM-2685): Issue with dill + local classes + abc metaclass import abc @abc.abstractmethod is disabled here to avoid an error with mypy. mypy performs abc.abtractmethod/property checks even if a class does not use abc.ABCMeta, however, functions like `register_pickle_urn` dynamically patch `to_runner_api_parameter`, which mypy cannot track, so mypy incorrectly infers that this method has not been overridden with a concrete implementation. @abc.abstractmethod

git_commits:

1. **summary:** [BEAM-7746] Silence a bunch of errors about "Cannot instantiate abstract class"
   message: [BEAM-7746] Silence a bunch of errors about "Cannot instantiate abstract class" abc.ABCMeta has been removed from this class with a fixme (BEAM-2685), which means there' no longer any runtime checking of @abc.abstractmethod. However, mypy still performs abc.abtractmethod/property checks even if a class does not use abc.ABCMeta (this is a feature that lets you avoid using metaclasses). The problem arises because the beam code is doing a lot of dynamic patching of to_runner_api_parameter (see register_pickle_urn), which mypy cannot track, so it believes this method is missing. We comment out @abc.abstractmethod, to disable the mypy checks (it's already disabled at runtime by virtue of an earlier change to remove abc.ABCMeta). We change the method to raise NotImplementedError to inform pylint not to trust its return value (None) and to get some degree of runtime checking.

github_issues:

github_issues_comments:

github_pulls:

github_pulls_comments:

github_pulls_reviews:

jira_issues:

1. **summary:** Add type hints to python code
   description: As a developer of the beam source code, I would like the code to use pep484 type hints so that I can clearly see what types are required, get completion in my IDE, and enforce code correctness via a static analyzer like mypy. This may be considered a precursor to BEAM-7060 Work has been started here: [https://github.com/apache/beam/pull/9056]

jira_issues_comments:

1. WDYT about adding a pytype (https://github.com/google/pytype) tox target as well? This will help maintain type hint compatibility with Google-internal tests.
2. This issue is assigned but has not received an update in 30 days so it has been labeled "stale-assigned". If you are still working on the issue, please give an update and remove the label. If you are no longer working on the issue, please unassign so someone else may work on it. In 7 days the issue will be automatically unassigned.
3. This issue was marked "stale-assigned" and has not received a public comment in 7 days. It is now automatically unassigned. If you are still working on it, you can assign it to yourself again. Please also give an update about the status of the work.
4. This issue is P2 but has been unassigned without any comment for 60 days so it has been labeled "stale-P2". If this issue is still affecting you, we care! Please comment and remove the label. Otherwise, in 14 days the issue will be moved to P3. Please see https://beam.apache.org/contribute/jira-priorities/ for a detailed explanation of what these priorities mean.
5. This issue was marked "stale-P2" and has not received a public comment in 14 days. It is now automatically moved to P3. If you are still affected by it, you can comment and move it back to P2.