# Mobile Application Development
# Manual-refresh cache from service using Retrofit

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November 20, 2016

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# Manual cache refresh

Learning objectives

How to manually refresh cached data using subclassed:

- Retrofit HTTP client.

# Manual cache refresh

Comparison auto & manual cache refresh

Recall that auto-refresh involves:

- Retrofit HTTP client
- BroadcastReceiver
- IntentService

Manual refresh does not use service or receiver

- Uses Retrofit HTTP client
- Direct call to service
- On worker thread

# Manual cache refresh

ResidenceListFragment

- Initiate manual refresh via menu selection.
- Represented by rotate icon.

```
onOptionsItemSelected(MenuItem item) {

  switch (item.getItemId()) {
  ...
    case R.id.action_refresh:
      retrieveResidences();
      return true;
  }
}
```

# Manual cache refresh

ResidenceListFragment

- Implement *retrieveResidences()*
- Using inner class pattern.
- Could use anonymous class.
- Retrieve residences from service.

```java
public void retrieveResidences() {
  RetrieveResidences retrieveResidences =
      new RetrieveResidences();
  Call<List<Residence>> call = app
      .residenceService
      .getResidences();
  call.enqueue(retrieveResidences);
}
```

# Manual cache refresh

ResidenceListFragment

- The inner class.
- Consult accompanying lab for full implementation.

```java
class RetrieveResidences
  implements Callback<List<Residence>> {

  @Override
  public void onResponse(Response<List<Residence>> response,
                         Retrofit retrofit) {
  ...
  }
  @Override
  public void onFailure(Throwable t) {
  ...
  }
}
```

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