| IORef | 1 | Software Transaction Memory (STM) | 2 |
|---|---|--|---|
| $newIORef :: a \rightarrow IO (IORef a)$ | 1 | $\text{newTVarIO} :: a \to \text{IO (TVar a)}$ | 2 |
| writeIORef :: IORef $a \rightarrow a \rightarrow IO$ () | 2 | write TVar :: TVar $a \rightarrow a \rightarrow TSM$ () | 4 |
| modifyIORef :: IORef $a \rightarrow (a \rightarrow a) \rightarrow IO()$ | 3 | $modifyTVar :: TVar a \rightarrow (a \rightarrow a) \rightarrow STM()$ | 5 |
| readIORef :: IORef a \rightarrow IO a | 4 | $readTVar :: TVar a \rightarrow STM a$ | 6 |