At the Manticore meeting on 11/7/07, we discussed moving BOM in the direction of System F.

The following summarize the proposed changes to the `<code>BOM</code>` module:

**New syntactic forms:**

- `let x : τ = y [τVec]`
- `apply f [τVec] (...) / (...)`
- `let x : τ = CONS [τVec] (...)`
- `let x : τ = CONST [τVec]`
- `throw k [τ] (...)`

**New types:**

- `α (* type variables *)`
- `forall αVec . τ`
- `T [τ] [τVec]`
- `τ + τ`

Here are the changes to the datatypes in the `<code>BOM</code>` module:

```plaintext
datatype term
  = ...
  E_Apply of (var * ty list * var list * var list)
  E_Throw of (var * ty list * var list)
  E_HLOp of (hlop * ty list * var list * var list)

and rhs
  = ...
  E_TyApply of (var * ty list)
  E_DCon of (data_con * ty list * ty list)

and lambda
  = FB of
    Unknown macro: { f }

and pat
  = P_DCon of (data_con * ty list * var list)
  P_DConst of (data_con * ty list)
  ...

and the changes to the BOMTy module:

datatype ty
  = T_Var of ty_var
  T_Forall of (ty_var list * ty)
  T_TyCon of (tyc * ty list)
  ...
```

We'll also need to add the `<code>ty_var</code>` type and make changes to the representation of `<code>tyc</code>`s.