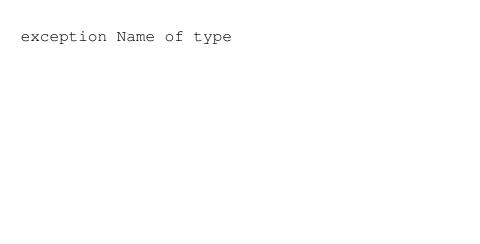
Define a new exception.



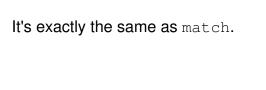
What is the type of an exception?

What is the type of raise?

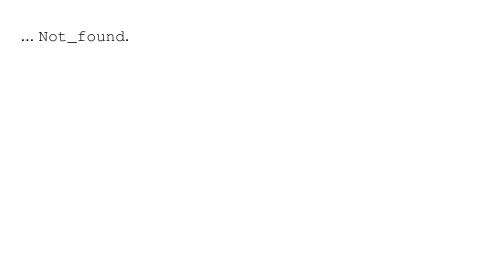
exn

exn -> 'a

Give the try syntax.



## Lookup functions that cannot find their element raise ...



Functions can reject bad arguments with ...

... Invalid\_argument.

What is Failure?

How is it different from Invalid\_argument.

Which is typically handled?

An exception for bad arguments less severe than Invalid\_argument or not the result of programming errors.

It takes an error string, typically the name of the function doing the raising.

It is only typical to handle Failure.

If no pattern is matched, what happens?

## A Match\_failure is raised.

Describe assertions.

assert (cond)

Raises an Assert\_failure if the condition fails.

## Name the errors resulting from lack of memory or stack space.

- -Out\_of\_memory -Stack\_overflow

Name some non-typical uses of exceptions.

- Reduce memory usage.
- As a break statement.

- To create *finally* semantics.

How can exceptions reduce memory usage?

Needless reconstruction of the input can be avoided on unsuccessful runs of functions that cons pattern match each

element of a list.