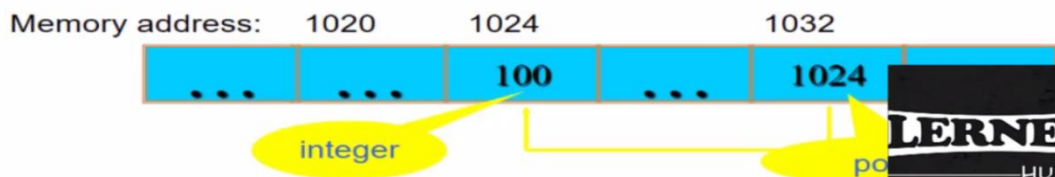


# Pointers In C++



## Pointers

- A pointer is a variable used to store the address of a memory cell.
- We can use the pointer to reference this memory cell



55 Introduction to pointer in C++.mp4 - VLC media player

Media Playback Audio Video Subtitle Tools View Help


# Pointer Types

- **Pointer**
  - C++ has pointer types for each type of object
    - Pointers to `int` objects
    - Pointers to `char` objects
    - Pointers to user-defined objects (e.g., `RationalNumber`)
  - Even pointers to pointers
    - Pointers to pointers to `int` objects

01:31 07:01

55 Introduction to pointer in C++.mp4 - VLC media player

Media Playback Audio Video Subtitle Tools View Help



# Pointer Variable

- **Declaration of Pointer variables**

```
type* pointer_name;  
//or  
type *pointer_name;
```

where *type* is the type of data pointed to (e.g. `int`, `char`, `double`)


Examples:

```
int *n;  
RationalNumber *r;  
int **p;    // pointer to pointer
```

01:55 07:01

55 Introduction to pointer in C++.mp4 - VLC media player

Media Playback Audio Video Subtitle Tools View Help



55 Introduction to pointer in C++.mp4 - VLC media player

Media Playback Audio Video Subtitle Tools View Help

## Address Operator &

- The "address of" operator (&) gives the memory address of the variable
  - Usage: **&variable\_name**

Memory address:    1020            1024




Diagram illustrating memory addresses and values:

...	...	100	...	...	...
-----	-----	-----	-----	-----	-----

a

```
int a = 100;
//get the value,
cout << a;    //prints 100
//get the memory address
cout << &a;   //prints 1024
```

**LERNEN**  
HUB ACADEMY

02:36 07:01