1 `main` — MIR Walkthrough

Purpose: TODO: Describe why this walkthrough exists

1.1 Source Context

```rust
fn main() {
    let tup:(i32, i32) = (42, 99);

    assert!(tup.0 != tup.1);
}
```

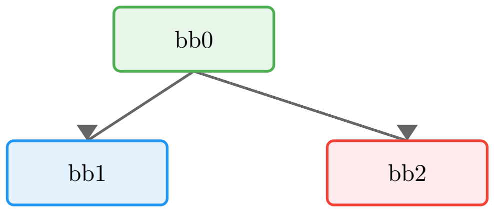
1.2 Function Overview

- **Function:** `main`
- **Basic blocks:** 3
- **Return type:** `() (0 bytes, align 1)`
- **Notable properties:**
  - Contains panic path
  - Has conditional branches

1.3 Locals

Local	Type	Notes
0	`() (0 bytes, align 1)`	Return place
1	`(i32, i32) (8 bytes, align 4)`	
2	`Bool`	
3	`Int(I32)`	
4	`Int(I32)`	
5	`()`	

1.4 Control-Flow Overview



1.5 Basic Blocks

1.5.1 bb0 — entry

Entry point of the function.

MIR	Annotation
`_1 = Tuple(42, 99)`	Construct aggregate
`_3 = _1.0`	Copy value
`_4 = _1.1`	Copy value
`_2 = move _3 != move _4`	Not equal operation
`→ switch(move _2) [0→bb2; else→bb1]`	Branch on move _2

1.5.2 bb1 — return / success

Normal return path.

MIR	Annotation
`→ return`	Return from function

1.5.3 bb2 — panic path

Panic/diverging path.

MIR	Annotation
`→ _5 = panic([16 bytes])`	Call panic

1.6 Key Observations

TODO: Add bullet points summarizing what this MIR teaches

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1.7 Takeaways

TODO: One or two sentences to generalize this example