1 `main` — MIR Walkthrough

Purpose: TODO: Describe why this walkthrough exists

1.1 Source Context

```
fn main() {
    assert!(420 / 10 ==42);
}
```

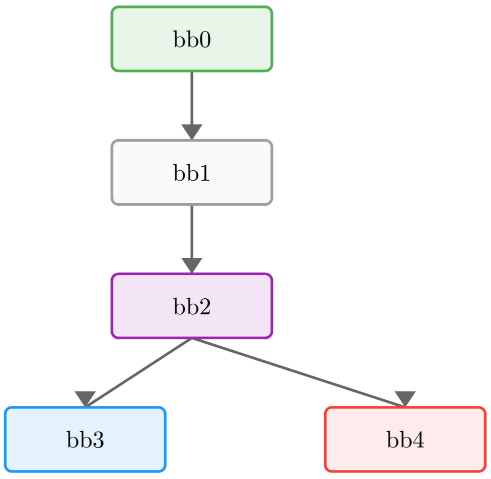
1.2 Function Overview

- **Function:** `main`
- **Basic blocks:** 5
- **Return type:** `()`
- **Notable properties:**
  - Contains panic path
  - Contains assertions
  - Has conditional branches

1.3 Locals

Local	Type	Notes
0	`()`	Return place
1	`i32`	
2	`bool`	
3	`bool`	
4	`bool`	
5	`bool`	
6	`!`	

1.4 Control-Flow Overview



1.5 Basic Blocks

1.5.1 bb0 — entry

Entry point of the function.

MIR	Annotation

`_2 = 10 == 0`	Equal operation
`→ assert(move _2 == false) → bb1`	Panic if move _2 is true

1.5.2 bb1

MIR	Annotation
`_3 = 10 == -1`	Equal operation
`_4 = 420 == -2147483648`	Equal operation
`_5 = move _3 & move _4`	AND operation
`→ assert(move _5 == false) → bb2`	Panic if move _5 is true

1.5.3 bb2 — branch point

MIR	Annotation
`_1 = 420 / 10`	Divide operation
`→ switch(move _1) [42→bb3; else→bb4]`	Branch on move _1

1.5.4 bb3 — return / success

Normal return path.

MIR	Annotation
`→ return`	Return from function

1.5.5 bb4 — panic path

Panic/diverging path.

MIR	Annotation
`→ _6 = panic([16 bytes])`	Call panic

1.6 Key Observations

TODO: Add bullet points summarizing what this MIR teaches

-
-

1.7 Takeaways

TODO: One or two sentences to generalize this example