



BLOCK NONCE #9: Early return

What?

If without an else = blockchain without decentralization. Technically possible, but mostly useless.

Why?

Your main logic shouldn't be wrapped in layers of if.

```
fn watch_movie(user: User) -> Result<(), WatchMovieError> {  
    if user.is_authenticated() {  
        if user.is_premium_plan() {  
            if user.pay() == Some(amount) {  
                user.watch_movie()  
            }  
        }  
    }  
    Err(WatchMovieError::AccessDenied)  
}
```

How?

Just flip the condition, add an early return and let the main logic breath.

```
fn watch_movie(user: User) -> Result<(), WatchMovieError> {  
    if !user.is_authenticated() {  
        return Err(WatchMovieError::NotAuthenticated);  
    }  
    if !user.is_premium_plan() {  
        return Err(WatchMovieError::NonPremiumUser);  
    }  
    user.pay()?;  
    user.watch_movie()  
}
```

This code is easier to understand- a simple list of checks followed by the main logic.

TIP💡

1. The ? operator is another form of early return. It's a shortcut for:

```
match user.pay() =>  
    Ok(_) => (),  
    Err(e) => return Err(e),
```

2. **Note:** continue = early return for loops!
3. If your function need to handle one **enum** variant, use the let-else syntax:

```
let AuthStatus::Authenticated(user) = auth else {  
    return Err(AccessError::NotAllowed);  
};
```

4. Do not early return in the middle of a big function!