How does liquidity provision work?

Example A

1. Alice funds market with 10 DAI and sets the odds to 50:50
2. The market takes the funding and converts it to 10 Yes and 10 No outcome tokens that are kept in the market as liquidity.
3. Alice receives an amount of pool tokens which represents the 10 DAI deposit.
4. Bob buys 2.5 Dai worth of Yes tokens from the market
    a. Bob sends 2.5 DAI (plus a 2% fee of ~ 0.05 DAI)
    b. The market takes the 2.5 DAI and converts it to 2.5 Yes and 2.5 No outcome tokens. It also deposits the fee.
    c. The market then converts the 2.5 No tokens to Yes tokens by trading with the existing liquidity.
    d. Preserving the product of its balances, the market returns 2 Yes tokens for the 2.5 No tokens deposited, leaving it with 8 Yes tokens and 12.5 no tokens (8*12.5 = 100 = 10*10).
    e. Bob gets back a total of 4.5 Yes tokens
5. Alice deposits her pool tokens and withdraws her liquidity, getting back 8 DAI and 4.5 No tokens, along with the 0.05 DAI she earned in fees. If the market resolves to Yes, Alice's No tokens will be worth nothing and she will have experienced nearly a 20% loss.

Why can liquidity provision be risky?

Providing liquidity is not risk free. There are two scenarios where liquidity providers need to withdraw liquidity immediately:

1) Outcome probability suddenly drops to 0% as it is clear that the outcome will never happen

Liquidity providers need to monitor the state of a market for outcomes where the probability of actually occurring suddenly drops to 0%. If the probability of an outcome suddenly drops to 0%, traders can sell those now worthless outcome shares into liquidity providers resulting in a loss for liquidity providers.

2) Market finalization is approaching

Liquidity providers should remove their liquidity a few days prior the market trading phase is closing. With that traders who hold outcome shares which are clearly going to be worthless can`t sell into the liquidity providers.