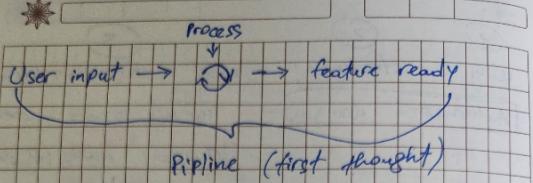


(1)	(2)	(3)
Why? strategies?		what automation? dangers?
Automation <u>duraja</u>	-	(1) Human → zero automation (2) shadow mode (AI observer)
(3)		↓ can't decide
<u>AI assistant</u>		↓ notify, alert
↓		
helps to decide - not sup control		
(4)		
<u>Partial automation</u> - AI + Human Collaboration		
AI automates, human decides		
(5)		
<u>Full Automation</u> -		
Monitoring		
Dashboard monitoring - server load, CPU, memory and disk usage		
Fraction of non-norm output -		
Model training - 50%		
Model Maintain / Monitoring - 50 %		



### Questions to be asked before Deployment

- Deployment gilinadigan model nimma on KK? Purpose
- What strategies to be used?
- Ganchalik automation KK?

### ① Why? (Purpose)

- New Product
- Pre-existing → desiting (manual work)
- Replacing existing one

### ② Strategies

- Rolling (old → new)
- Blue-Green (old → new)
- Canary (partial)

#### Shadow

- Feature Flags
- Immutable (security)
- A/B testing (proxy)

#### ④ Rolling

↳ eskinin yangiga (model deployment) olmashtirish (baszichma - boszich o'sgartirish)

Pros! gradual, not stopping system

Cons! problem affects whole system

#### ② Blue-Green

2 ta versiya bor, gradual changing, not affecting whole system omlik Rolling

Birida muammo bo'sha ikkinchisiga shini helenish

#### ③ Canary

O'sgartirish gradually (3%, 20%...) userlaga

korsatilishi oraliq testing va applying

Pros: problem? faydat kichik fingga tashrif giladi.

#### ④ Shadowing

↳ Offline testing, Secure testing,  
deployment before deployment

#### ⑤ Feature flags

Yangi feature larni faoliyatish through flags  
Yoki yashirish

Pros: shutting off fast (problem), testing  
with limited users

#### ⑥ Inenvy table

- ↳ - new versions completely new
- existing servers not changed
- high security

#### ⑦ A/B Testing

2 versions → 2 type of users

2 testing bir vagtida

testing natija yaixchi-yomonligi user reaction  
Blue-green dan forsi userlar ham 2ga bolinishi

Hus  
hus  
Blu  
Rol  
She  
Ro  
A1

Human automation daraja - zero automation  
human decision.

Blue-Green - banking, health care

Rolling & Canary - cloud server, ML models

Shadow - fraud detection, recommendation syst

Feature flags - social media updates

A/B Testing - e-commerce, UI changes

ML Model issues - changes

Software engineering issues ↴

edge device - our device (storing data on our device)

compute resources (GPU, CPUs, TPUs)

latency - Predictskačka bətpəm vəzit  
inputdan outputni olışğardək bətgən vəzit

throughput - image generating time

logging - əzəmətshərin saqlash işi

security / privacy - storing data (using id for name)

Batch - getting result after a long time

Feature Flags -

Immutable Deployment - xanfırızlılıq yugorii,  
eski deploymentga gətirish imkoniyatı

A/B Testing - A - old      { model  
                              B - new

Zəfər testinən bitib turish - knowing better  
performance from user ratings, reaction