

Health Care systems using machine learning algorithms

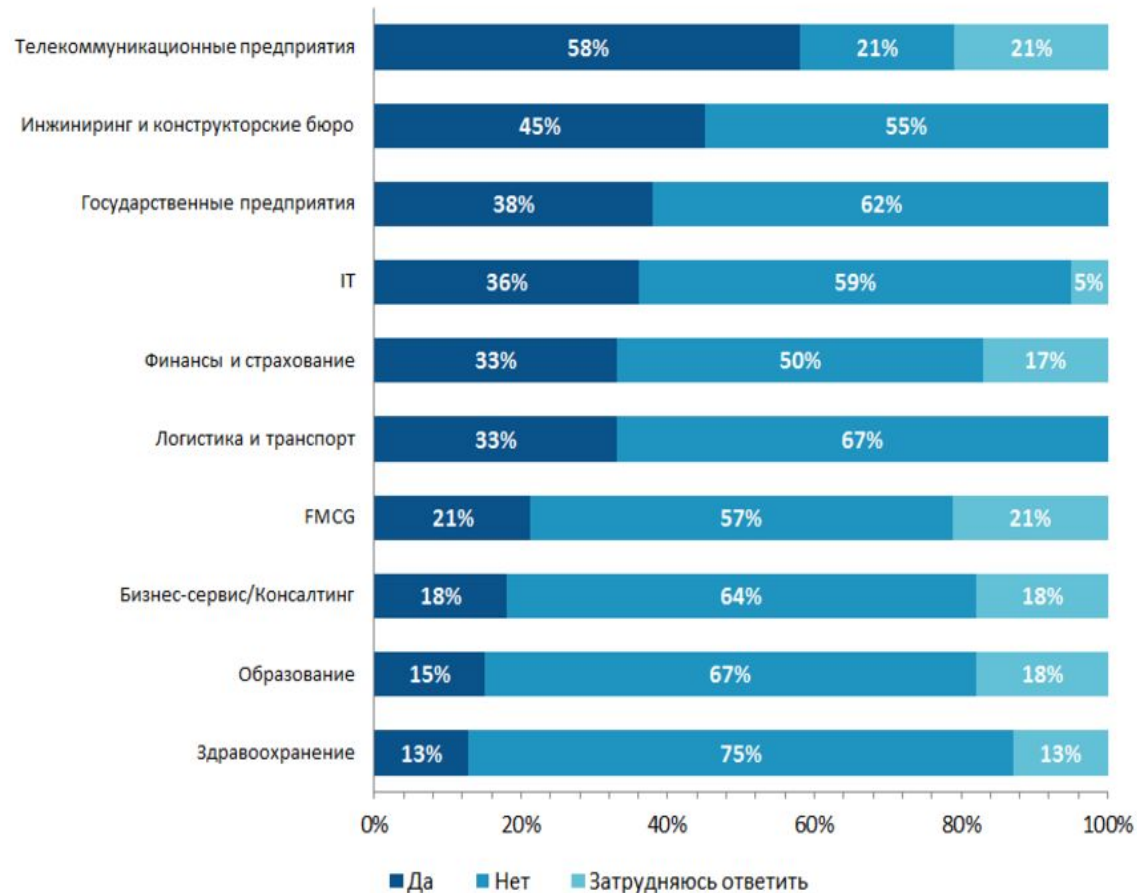
Done by: Alimbayeva Z.K.

Supervisor: Yakunin K.O.

Content

- General description of the project
- Used technologies
- Implementation of web-API
- Project results
- Economic estimations
- Success criteria

General description of the project



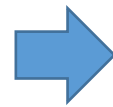
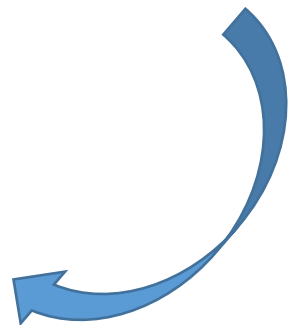
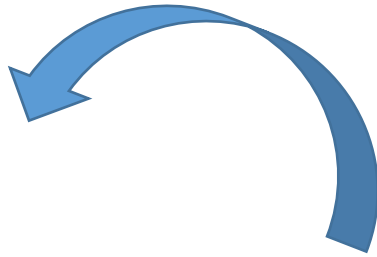
Источник: Tech Pro Research

Goal: Development of client-server application which is intended for health care.

Objectives: Create a MVP of project as client-server application on Django and IOS platform.

The societal vision: Creation of a application that will help in monitoring of well-being a person and give a predict value about personal data.

Solved problems: Storage, access and visualization of medical data, and analysis and design of expert recommendation systems for decision making using machine learning algorithms and time series analysis.



HealthAgent



Human resource:

-Team member:

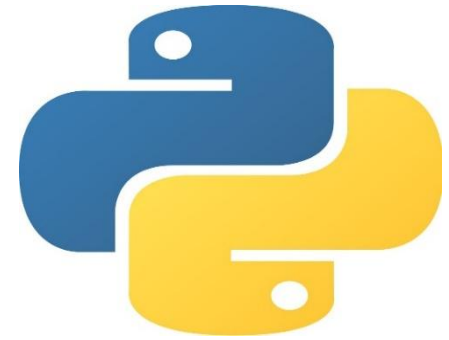
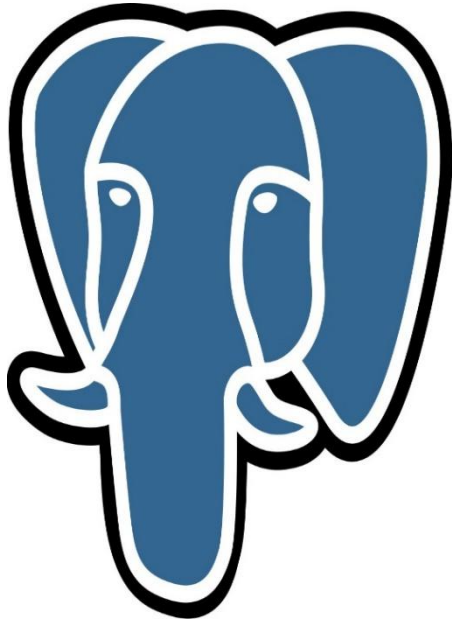
Kazhenbayeva Gulnaz (IOS-developer)

Alimbayeva Zarina (back-end developer)

-mentors:

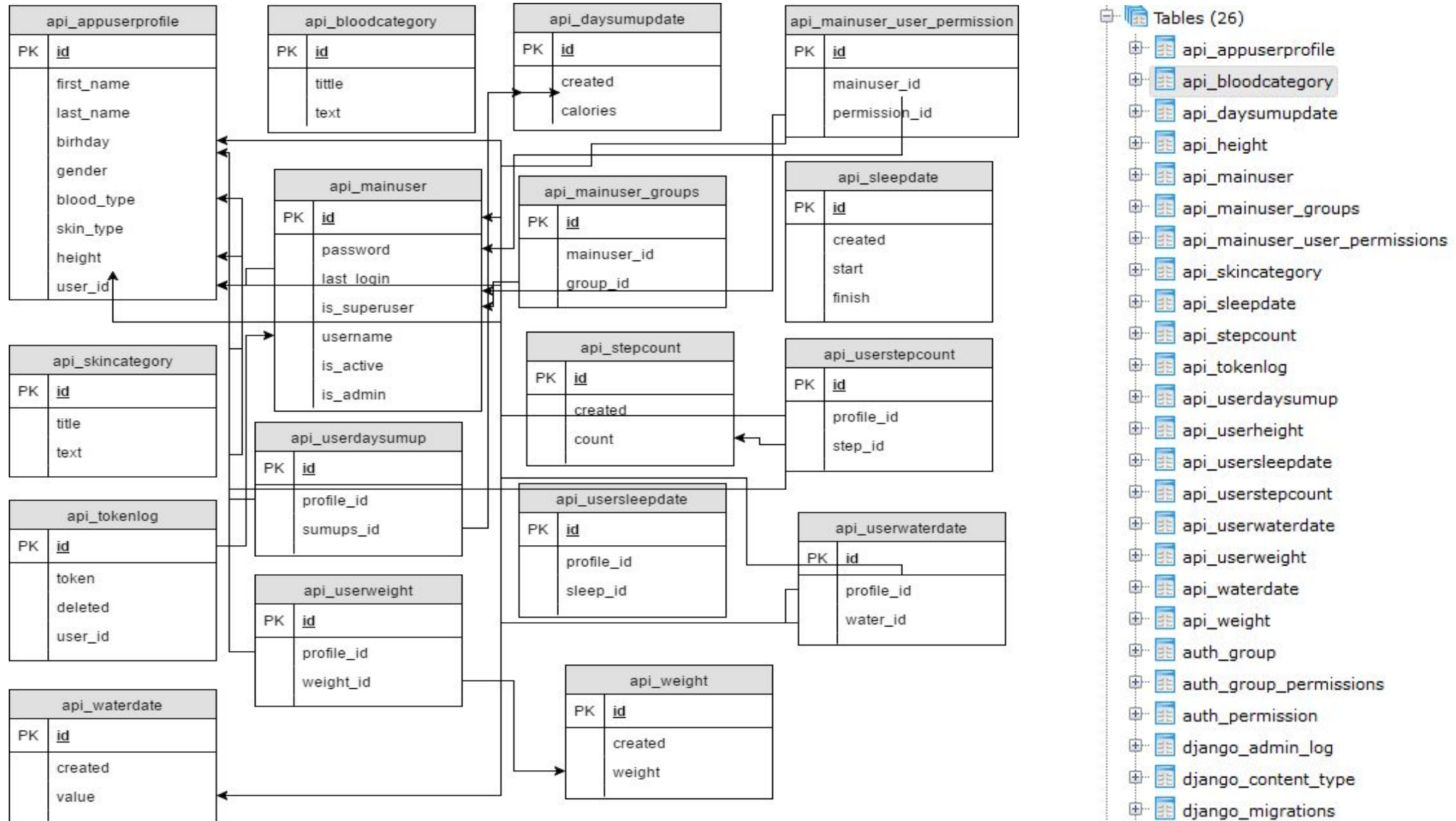
KBTU teachers

Used technologies



django

Implementation of web-API



```
class UserStepCount(models.Model):
    """
    """
    profile = models.ForeignKey(AppUserProfile, blank=False, related_name='steps')
    steps = models.ForeignKey(settings.STEP_MODEL, blank=False)

    class Meta:
        unique_together = ('profile', 'steps')
        verbose_name_plural = "Шаги пользователя"

    def __unicode__(self):
        return self.steps

        "first_name": self.first_name,
        "last_name": self.last_name,
        "birthday": self.birthday,
        "gender": self.gender,
        "blood_type": self.blood_type,
        "skin_type": self.skin_type,
        "height": self.height
        # "languages": [l.full() for l in self.languages.filter(is_active=True)]
}
```

Api Root / Weight List

Weight List

OPTIONS

GET ▾

GET /api/weights/

HTTP 200 OK
Allow: GET, POST, HEAD, OPTIONS
Content-Type: application/json
Vary: Accept

[]

Raw data

HTML form

User

CreateDate

Weight

Bmi

POST

POST ▼ http://0.0.0.0:8000/api/register/ Params Send ▼ Save ▼

| Key | Value | Bulk Edit |
|---------|-------|---------------------------|
| New key | value | |


Authorization Headers **Body** ● Pre-request Script Tests [Code](#)

form-data x-www-form-urlencoded raw binary

| Key | Value | Bulk Edit |
|--|-------|---------------------------|
| <input checked="" type="checkbox"/> username | user5 | |
| <input checked="" type="checkbox"/> password | user5 | |

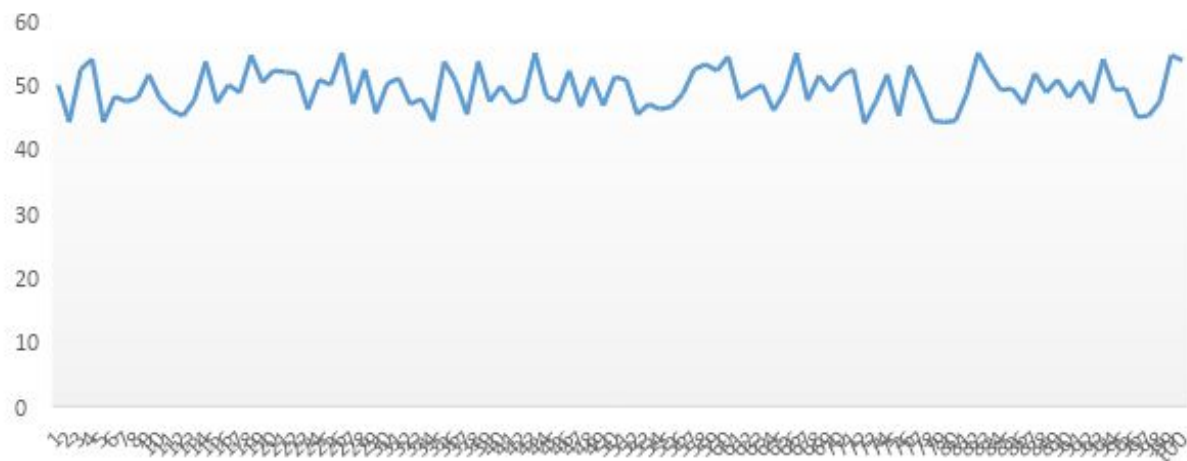
New key Text ▼ value

Body Cookies Headers (4) Tests Status: 200 OK Time: 99 ms

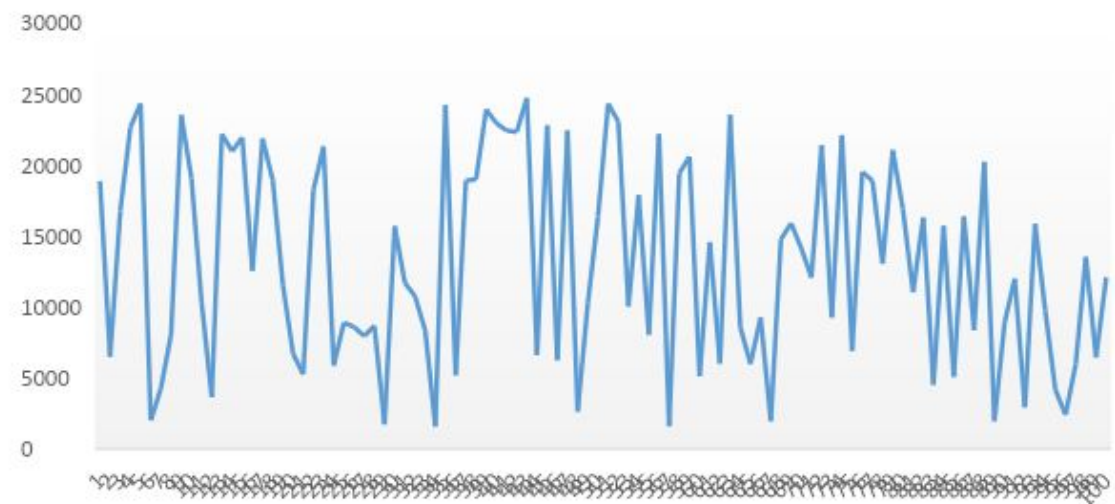
Pretty Raw Preview JSON ▼   

```
1 {
2   "code": 0
3 }
```

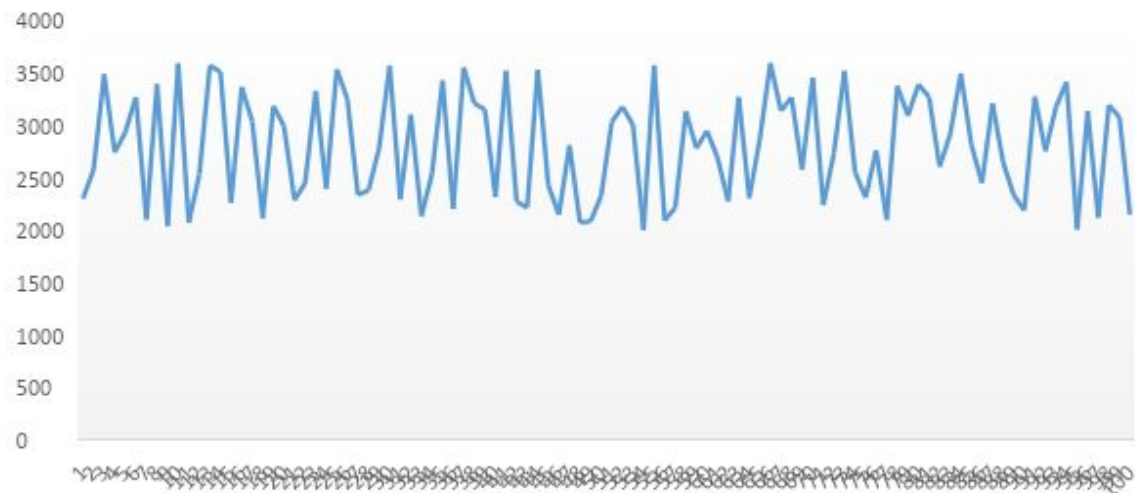
Weight

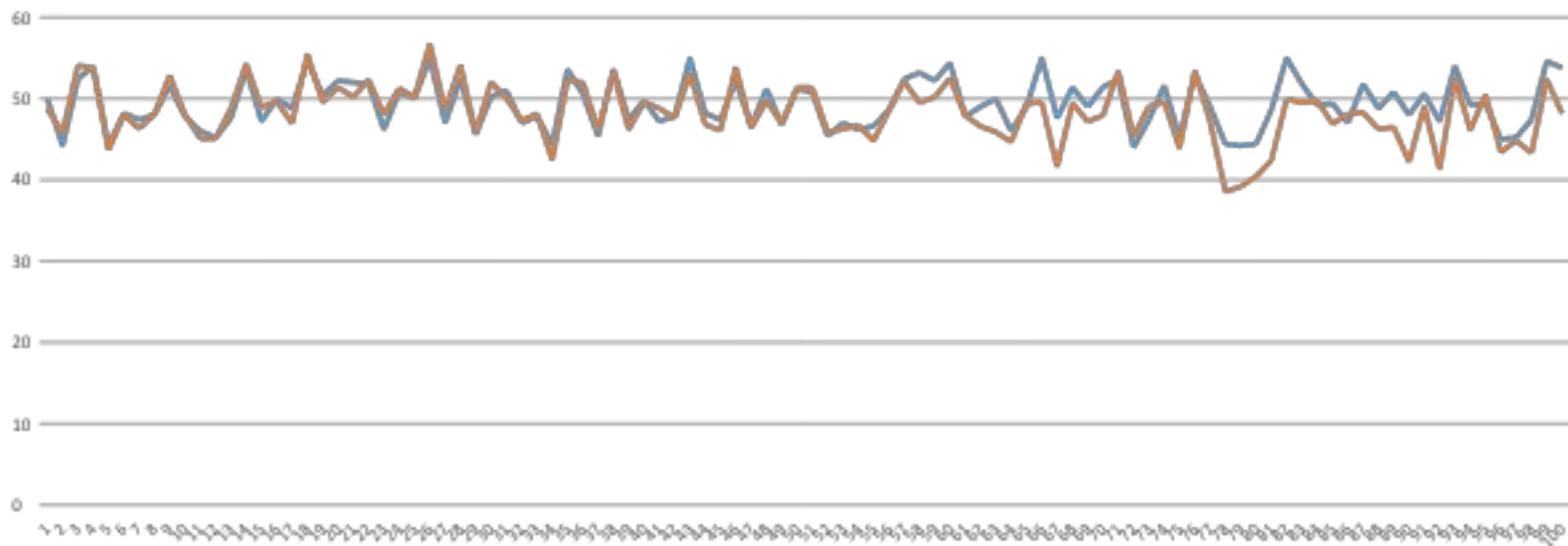


activity



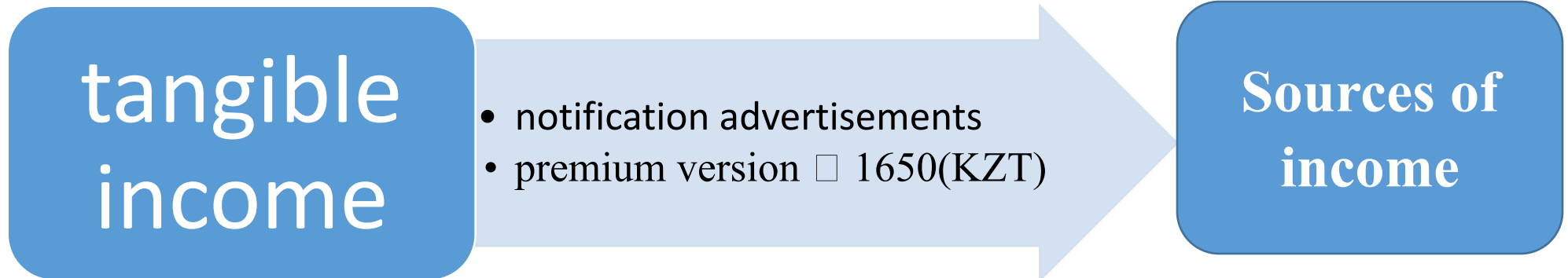
Calories





Economic estimations

| | |
|----------------------------|-----------------|
| Profitability Index | 1.43 |
| Revenue | 8 136 000 (KZT) |
| Payback Period | 0.7 |
| Profit | 2 443 640 (KZT) |
| Cost | 5 692 360 (KZT) |



Success criteria

- ✓ Profitability Index = 43%
- ✓ In market has no competitors
- ✓ Has a big opportunities for changing health care sphere
- ✓ Originality and relevance in today
- ✓ Users get a motivation lead a healthy lifestyle



**Thank you for a
attention!!!**