**“Smart” Tarjimon Platformasi – Texnik Loyiha Hujjati**

# 1. Loyiha Maqsadi

“Smart” Tarjimon platformasi — texnik jihatdan tartibga solish sohasidagi normativ hujjatlarni sun’iy intellekt (AI) va tabiiy tilni qayta ishlash (NLP) texnologiyalari yordamida davlat tiliga va boshqa xorijiy tillarga avtomatik tarjima qiluvchi zamonaviy platformadir. Ushbu platformaning asosiy maqsadi ilmiy, texnik, ekologik, energetik, sog‘liqni saqlash, qurilish, sanoat va boshqa sohalardagi xalqaro standart va reglamentlarni rasmiy davlat tiliga aniq, izohli va huquqiy mos holda tarjima qilishni avtomatlashtirishdan iborat.  
Platforma quyidagi asosiy funksiyalarni bajaradi:

- AI asosidagi avtomatik tarjima: Katta hajmdagi matnlarni sun’iy intellekt yordamida tezkor tarjima qiladi.  
- Normativ terminologiyani aniqlash: Qonunchilikdagi rasmiy tushunchalarga moslikni tahlil qiladi.  
- Avtomatik izoh berish: Texnik yoki huquqiy atamalarga izohlar va tavsiyalar beradi.  
- Ma’lumotlar bazasiga integratsiya: Oldingi tarjimalar bilan bog‘lanib, izchil tarjimalar yaratadi.  
- Foydalanuvchi interfeysi: Qulay, tezkor va grafik interfeys orqali foydalanishni qulaylashtiradi.  
- Real vaqtli so‘rovlar: Bir necha tillar o‘rtasida bir vaqtning o‘zida tarjima imkonini beradi.  
  
Bu platforma davlat tashkilotlari, sertifikatlash organlari, mutaxassislar va tarjimonlar uchun ishonchli vosita bo‘lib xizmat qiladi. U vaqtni tejaydi, inson xatolarini kamaytiradi va sifatli tarjimani ta'minlaydi.

# 2. Asosiy Vazifalar

- NLP texnologiyalari asosida avtomatik tarjima

- Huquqiy termin va izohlarni avtomatik aniqlash

- Foydalanuvchi uchun qulay interfeys (UI)

- Tarjima tarixini saqlovchi bazaviy tizim

# 3. Foydalaniladigan Texnologiyalar

- Backend: Python (FastAPI), PostgreSQL, Redis

- Frontend: React.js, Tailwind CSS

- AI/NLP: HuggingFace Transformers, PyTorch, DeepSeek, mT5

- Deployment: Docker, Linux, Nginx, GitLab CI/CD

# 4. Jamoa Tarkibi

|  |  |  |  |
| --- | --- | --- | --- |
| Lavozim | Soni | Texnologiyalar | Vazifalar |
| ML muhandisi | 2 | Python, PyTorch, Transformers | AI model yaratish va o‘qitish |
| Backend dasturchi | 2 | Python (FastAPI), PostgreSQL | API, tarjima servisi |
| Frontend dasturchi | 1 | React, Tailwind | Interfeys yaratish |
| DevOps | 1 | Docker, Linux, GitLab | Server sozlash |
| Lingvist | 1 | Texnik tarjima | Termin va izohlarni tekshirish |
| Loyiha rahbari | 1 | PM metodlari | Jarayonni boshqarish |

# 5. Smeta (Loyiha Byudjeti)

Jami loyiha qiymati (7-8 oy davomida): 3 946 614 588,00 so’m

# 6. Ish Jadvali (Gantt Diagramma)

|  |  |  |  |
| --- | --- | --- | --- |
| Bosqich | Muddat (kun) | Boshlanish | Tugash |
| Texnik topshiriq va tahlil | 12 | 2025-05-01 | 2025-05-12 |
| AI model tanlash va o‘qitish | 13 | 2025-05-13 | 2025-05-25 |
| Backend ishlab chiqish | 40 | 2025-05-26 | 2025-07-04 |
| Frontend ishlab chiqish | 30 | 2025-07-05 | 2025-08-03 |
| Server sozlash va xavfsizlik | 15 | 2025-08-04 | 2025-08-18 |
| Sinov va optimallashtirish | 25 | 2025-08-19 | 2025-09-12 |
| Hujjatlashtirish va yakunlash | 18 | 2025-09-13 | 2026-09-30 |

# 7. Jamoa A'zolari Oylik Ish Haqlari

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Lavozim | Oylik Ish Haqi (UZS) | Soni | Oylar | Jami (USD) |
| ML muhandisi | 37 452 225 | 2 | 7 | 524 331 150,00 |
| Backend dasturchi | 30 961 780 | 2 | 6 | 371 541 360,00 |
| Frontend dasturchi | 28 365 602 | 1 | 5 | 141 828 010,00 |
| DevOps | 30 961 780 | 1 | 3 | 92 885 340,00 |
| Lingvist (texnik tahrirchi) | 20 577 068 | 1 | 5 | 102 885 340,00 |
| Loyiha menejeri | 30 961 780 | 1 | 7 | 216 732 460,00 |
| Jami |  |  |  | 1 450 203 660,00 |

# 8. Server Konfiguratsiyasi

“AGATA IMPEX LTD” MChJ tomonidan yuborilgan tijoriy taklifga muvofiq, quyidagi spetsifikatsiyadagi uskunalar va ularning narxlari bo‘yicha ma’lumotlar keltirilgan:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **№** | **P/N** | **Описание** | **Кол-во** | **Цена** | **Сумма** |
| 1 | Р52533-В21 | НРБ ProLiant DL380 Genl 1 12LFF NC Configure-to- order Server | 1 | 760 890 496 | 760 890 496 |
| Р67085-В21 | Intel Xeon-Platinum 8562Y+ 2.8GHz 32-core 300W  Processor for НРБ | 2 |
| Р64706-В21 | НРБ 32GB (1x32GB) Dual Rank x8 DDR5-5600 CAS-46- 45-45 EC8 Registered Smart Memory Kit | 16 |
| Р48811-В21 | HPE ProLiant DL380 Genl 1 2SFF U.3 HDD Stacking Drive Cage Kit | 1 |
| Р65023-В21 | HPE 6.4TB NVMe Gen4 Mainstream Performance Mixed  Use SFF BC U.3 Static V2 Multi Vendor SSD | 2 |
| Р37009-В21 | HPE 960GB SAS 12G Mixed Use LFF LPC Value SAS Multi Vendor SSD | 2 |
| Р53553-В21 | HPE 20TB SAS 12G Business Critical 7.2K LFF LP 1- year Warranty Helium 512e ISE Multi Vendor HDD | 4 |
| Р26262-В21 | Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE | 1 |
| Р47777-В21 | HPE MR416i-p Genii xl6 Lanes 8GB Cache PCI SPDM Plug-in Storage Controller | 1 |
| Р01366-В21 | HPE 96W Smart Storage Lithium-ion Battery with 145mm Cable Kit | 1 |
| Р48918-В21 | HPE ProLiant DL360 Genl 1 Storage Controller Enablement Cable Kit | 1 |
| Р51181-В21 | Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T OCP3 Adapter for HPE | 1 |
| 455883-В21 | HPE BladeSystem c-Class 10Gb SFP+ SR Transceiver | 2 |
| Р03178-В21 | HPE 1000W Flex Slot Titanium Hot Plug Power Supply Kit | 2 |
| BD505A | HPE iLO Advanced 1-server License with 3yr Support on iLO Licensed Features | 1 |
| S1A05A | HPE Compute Cloud Management Server FIO Enablement | 1 |
| Р56995-В21 | HPE ProLiant DL380 Genl 1 LFF Front Tri-Mode Cable Kit | 1 |
| Р48820-В21 | HPE ProLiant DL380/DL560 Genl 1 2U High Performance Fan Kit | 1 |
| Р48818-В21 | HPE ProLiant DL380/DL560 Genl 1 High Performance 2U Heat Sink Kit | 2 |
| P5234I-B21 | HPE ProLiant DL3XX Genl 1 Easy Install Rail 3 Kit | 1 |
| R7A11AAE | HPE Compute Ops Management Standard 3-year Upfront ProLiant SaaS | 1 |
| HU4B2A3 | HPE 3Y Tech Care Basic Service | 1 |
| HU4B2A300D К | HPE DL380 Genl 1 Support | 1 |
|  | | | | | |
| 2 | Р54198-В21 | НРЕ ProLiant DL385 Genl 1 GPU Configure-to-order Server | 1 | 1 735 520 432 | 1 735 520 432 |
| Р53701-В21 | AMD EPYC 9354 3.25GHz 32-core 280W Processor for HPE | 2 |
| Р50312-В21 | HPE 64GB (1x64GB) Dual Rank x4 DDR5-4800 CAS-40- 39-39 EC8 Registered Smart Memory Kit | 16 |
| Р57867-В21 | HPE ProLiant DL3X5 Genl 1 GPU 8SFF U.3 F1O Backplane Kit | 1 |
| Р40512-В21 | HPE 3.84TB SAS 12G Mixed Use SFF BC Value SAS Multi  Vendor SSD | 4 |
| Р50233-В21 | HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735a SSD | 2 |
| Р47777-В21 | HPE MR416i-p Genl 1 xl6 Lanes 8GB Cache PCI SPDM Plug-in Storage Controller | 1 |
| Р26262-В21 | Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE | 1 |
| Р01367-В21 | HPE 96W Smart Storage Lithium-ion Battery with 260mm Cable Kit | 1 |
| Р57884-В21 | HPE ProLiant DL3X5 Genii Smart Storage Battery 2P 96W Cable Kit | 1 |
| Р69872-В21 | HPE ProLiant DL385 Genl 1 GPU Storage Battery Bracket Kit | 1 |
| Р51181-В21 | Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T OCP3 Adapter for HPE | 1 |
| S2D86C | NVIDIA H100 NVL 94GB PCIe Accelerator for HPE | 1 |
| 455883-В21 | HPE BladeSystem c-Class 10Gb SFP+ SR Transceiver | 2 |
| Р38997-В21 | HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit | 4 |
| BD505A | HPE iLO Advanced 1-server License with 3yr Support on iLO Licensed Features | 1 |
| S1A05A | HPE Compute Cloud Management Server FIO Enablement | 1 |
| Р55094-В21 | HPE ProLiant DL385 Genii 4 Double Wide GPU FIO Enablement Kit | 1 |
| Р70316-В21 | HPE ProLiant DL385 Genl 1 GPU 8SFF x2 PCIe Tri-Mode Cable Kit | 1 |
| Р80743-В21 | HPE ProLiant DL385 Genl 1 16-pin GPU Power Cable v2 Kit | 1 |
| Р57886-В21 | HPE ProLiant DL385 Genii 2U Standard/Performance FIO Air Baffle Kit | 1 |
| Р58465-В21 | HPE ProLiant DL3X5 Genl 1 2U Performance Fan Kit | 6 |
| Р35876-В21 | HPE CE Mark Removal FIO Enablement Kit | 1 |
| Р52345-В21 | HPE Ball Bearing Rail 8 Kit | 1 |
| Р57888-В21 | HPE ProLiant DL385 Genl 1 Power Distribution Board Kit | 1 |
| Р58459-В21 | HPE ProLiant DL3X5 Genl 1 2U Performance Heat Sink Kit | 2 |
| R7A11AAE | HPE Compute Ops Management Standard 3-year Upfront ProLiant SaaS | 1 |
| HU4B2A3 | HPE 3Y Tech Care Basic Service | 1 |
| HU4B2A300DH | HPE ProLiant DL385 Genl 1 Support | 1 |
| **Jami:** | | | | **2 496 410 928** | |