

## **\*\*Application Description\*\***

This application is a web service interface developed using FastAPI to provide text translation functionality between multiple languages. It combines the translation capabilities of the Argos Translate and MarianMT models, offering a wide range of supported languages.

## **\*\*Main Features\*\***

- **\*\*Application Initialization\*\***: The application is started using the FastAPI framework.
- **\*\*Jinja2 Configuration\*\***: It uses Jinja2 templates to render HTML responses.
- **\*\*CORS Middleware\*\***: Implements CORS (Cross-Origin Resource Sharing) middleware to allow requests from specific different origins.
- **\*\*Bot Blocking\*\***: Adds middleware to block known search bots, returning a 403 Forbidden response if a bot is detected.
- **\*\*Argos Translation Models\*\***: Loads and keeps all Argos Translate translation models in memory.
- **\*\*Language Dictionary\*\***: Defines a dictionary with language code mappings and their descriptions.
- **\*\*Supported MarianMT Models\*\***: Lists the available MarianMT models for specific language pair translation.

## **\*\*Route Structure\*\***

- **\*\*Translation Route (/translate/)\*\***: Receives a translation request, determining whether to use Argos Translate or MarianMT, or a combination of both for intermediate translation.
- **\*\*Languages Route (/languages/)\*\***: Returns the dictionary of supported languages.
- **\*\*Home Page (/)\*\***: Renders an initial HTML page where users can submit text for translation.

## **\*\*Translation Functions\*\***

- **\*\*translate\_with\_argos\*\***: Performs text translation using Argos Translate models.
- **\*\*translate\_with\_marian\*\***: Performs text translation using MarianMT models.
- **\*\*translate\_intermediate\*\***: Combines Argos and MarianMT models to perform intermediate translations for languages that are not directly supported.

## **\*\*Running the Server\*\***

The server is configured to run via uvicorn, listening on host 127.0.0.1 and port 8000.

## **\*\*Additional Features\*\***

- **\*\*Copy Button\*\***: After translation, a green "Copy" button is displayed next to the translated text. When clicked, it provides a "Copied" message.
- **\*\*Voice Input Button (🎤)\*\***: After selecting the language to translate to, voice input can be used for translation within supported languages. Slang should be avoided.
- **\*\*Listen Pronunciation Button (🔊)\*\***: After performing the translation, users can listen to the pronunciation of the translated text, provided they are using browsers like Edge and Chrome (excluding Traditional Chinese). The quality of the translation and voices may vary depending on the browser. For the best experience, it's recommended to use the Edge browser (Windows).
- **\*\*Pause Pronunciation Button (⏸️)\*\***: After starting the pronunciation, users can stop it abruptly by clicking the pause button.
- **\*\*Swap Translation Button (↔️)\*\***: Allows the user to swap the translation direction between two languages by clicking the button.

## **\*\*Supported Languages\*\***

The application supports a variety of languages, organized in a dictionary with language codes and their descriptions. Some examples include:

- **\*\*pt\*\*** - Portuguese (Default)

\*Note: Based on Portuguese from PORTUGAL, but can also be used for translation of texts written in pt-BR (Brazilian Portuguese) or pt-AO (Angolan Portuguese)

to other supported languages.\*

- **en** - English (United States)
- **es** - Spanish (Spain)
- **de** - German (Germany)
- **zh** - Simplified Chinese (China)

And many more (totaling over 30 languages).

### **Translation Logic**

The application uses two main translation libraries: Argos Translate and MarianMT. Depending on the source and destination languages, different strategies are used:

- **Direct Translation with Argos Translate**:  
Uses Argos Translate to perform direct translations between languages loaded into memory. If both the source and destination languages are available in the Argos models, the translation occurs directly.
- **Direct Translation with MarianMT**:  
Uses MarianMT for direct translations between specific language pairs, such as English to Croatian. MarianMT models are loaded as needed.
- **Intermediate Translation**:  
When direct translation between two languages is not supported by the application (i.e., no direct translation model exists), intermediate translation is used.  
**Steps**:
  1. **Translate to English**: If the source language is not English, the application first translates the text into English using Argos Translate.
  2. **Translate from English to Target Language**: The application then translates the English text into the target language using MarianMT or Argos Translate, depending on model availability.

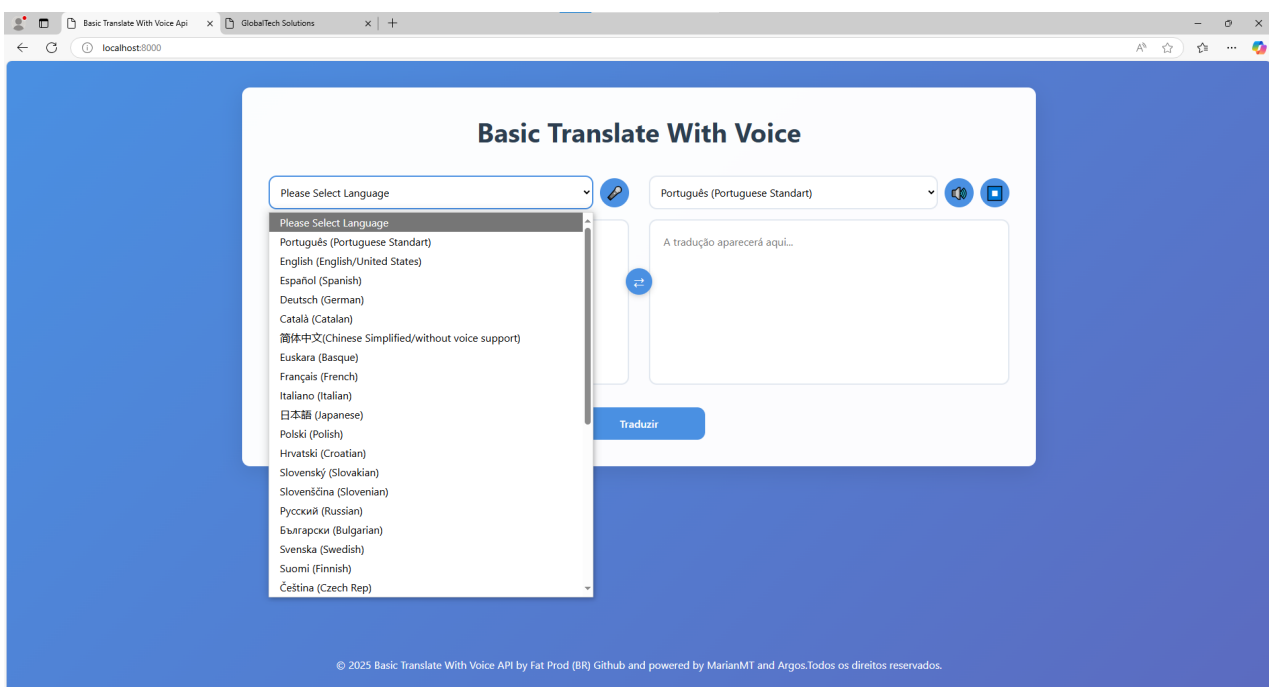
### **Example of Intermediate Translation**

If a user wants to translate from Portuguese (pt) to Croatian (hr), the following process occurs:

1. **Portuguese to English**: The original Portuguese text is translated to English using Argos Translate.
2. **English to Croatian**: The English text is then translated into Croatian using MarianMT.

This approach ensures that translations between unsupported language pairs can still be efficiently completed, using English as an intermediary language.

### **Some Tests Performed with the API/Web Application**



## Basic Translate With Voice

Português (Portuguese Standart)



English (English/United States)



Em 1987, a marca norte-americana Chrysler comprou a Lamborghini e, além do substituto do Countach, começou a preparar um motor para equipar carros de Fórmula 1. A estreia nesta competição automobilística ocorreu em 1989, mas nunca teve sucesso. Desde 1998 a Lamborghini pertence ao grupo Volkswagen. Já o substituto do Countach, o Diablo, foi apresentado em 1990 e obteve grande sucesso, mantendo-se em produção para além do ano 2000. O mais novo Lamborghini é o Huracán que chegou em 2014 para substituir o Gallardo. O Lamborghini Huracán traz uma nova tecnologia que é



In 1987, the North American brand Chrysler bought Lamborghini and, in addition to Countach's replacement, began preparing a motor to equip Formula One cars. The debut in this car competition took place in 1989, but never succeeded. Since 1998 Lamborghini belongs to the Volkswagen group. Countach's replacement, Diablo, was introduced in 1990 and achieved great success, maintaining production beyond the year 2000. The youngest Lamborghini is the Huracán who arrived in 2014 to replace the Gallardo. The Lamborghini Huracán brings a new technology that is the hybrid

Traduzir

Copiar

## Basic Translate With Voice

Português (Portuguese Standart) ▼



English (English/United States) ▼



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Traduzir

Copiado! ✓

## Basic Translate With Voice

Português (Portuguese Standard)



Русский (Russian)



Ouvir pronuncia

Em 1987, a marca norte-americana Chrysler comprou a Lamborghini e, além do substituto do Countach, começou a preparar um motor para equipar carros de Fórmula 1. A estreia nesta competição automobilística ocorreu em 1989, mas nunca teve sucesso. Desde 1998 a Lamborghini pertence ao grupo Volkswagen. Já o substituto do Countach, o Diablo, foi apresentado em 1990 e obteve grande sucesso, mantendo-se em produção para além do ano 2000. O mais novo Lamborghini é o Huracán que chegou em 2014 para substituir o Gallardo. O Lamborghini Huracán traz uma nova tecnologia que é



В 1987 году североамериканский бренд Chrysler купил Lamborghini и, помимо замены Countach, начал готовить мотор для оснащения автомобилей Формулы Один. Дебют в этом автосоревновании состоялся в 1989 году, но так и не удался. С 1998 года Lamborghini входит в концерн Volkswagen. Замена Countach, Diablo, была представлена в 1990 году и достигла большого успеха, сохранив производство после 2000 года. Самым молодым Lamborghini является Huracán, который прибыл в 2014 году, чтобы заменить Gallardo. Lamborghini Huracán

Traduzir

Copiar

## Basic Translate With Voice

Português (Portuguese Standart)



do Countach, o Diablo, foi apresentado em 1990 e obteve grande sucesso, mantendo-se em produção para além do ano 2000. O mais novo Lamborghini é o Huracán que chegou em 2014 para substituir o Gallardo. O Lamborghini Huracán traz uma nova tecnologia que é o chassi híbrido, feito de carbono e alumínio, o que deixa o carro 10% mais leve que seu antecessor e com uma carroceria 50% mais rígida. O Lamborghini Urus foi apresentado no Auto China em 23 de abril de 2012 e lançado em 2018. O seu nome vem do nome dos antepassados selvagens do gado doméstico também conhecidos como auroques.



日本語 (Japanese)



1987年、ノース・アメリカン・ブランド・クライスラーがランボルギーニを購入し、郡の交換に加えて、フォーミュラワン・カーを装備するためにモーターを準備し始めました。この車コンクールでデビューしたのは1989年だったが、成功したことはない。1998年以来、ランボルギーニはフォルクスワーゲングループに属しています。Countachの交換、Diabloは1990年に導入され、2000年を超える生産を維持する大い成功を達成しました。最も若いランボルギーニは、ガラードを交換するために2014年に到着したハリカンです。Lamborghini Huracánは、炭素とアルミニウムで作られたハイブリッド・シャシと新しい材料を組み合わせ、この製品は、

Traduzir

Copiar

# Basic Translate With Voice

English (English/United States)

Deutsch (German)

Digite ou fale o texto para traduzir...

A tradução aparecerá aqui...

↔

Traduzir

## Basic Translate With Voice

English (English/United States) ▼



Deutsch (German) ▼



Hello, good morning. How are you?

Iniciar reconhecimento de voz

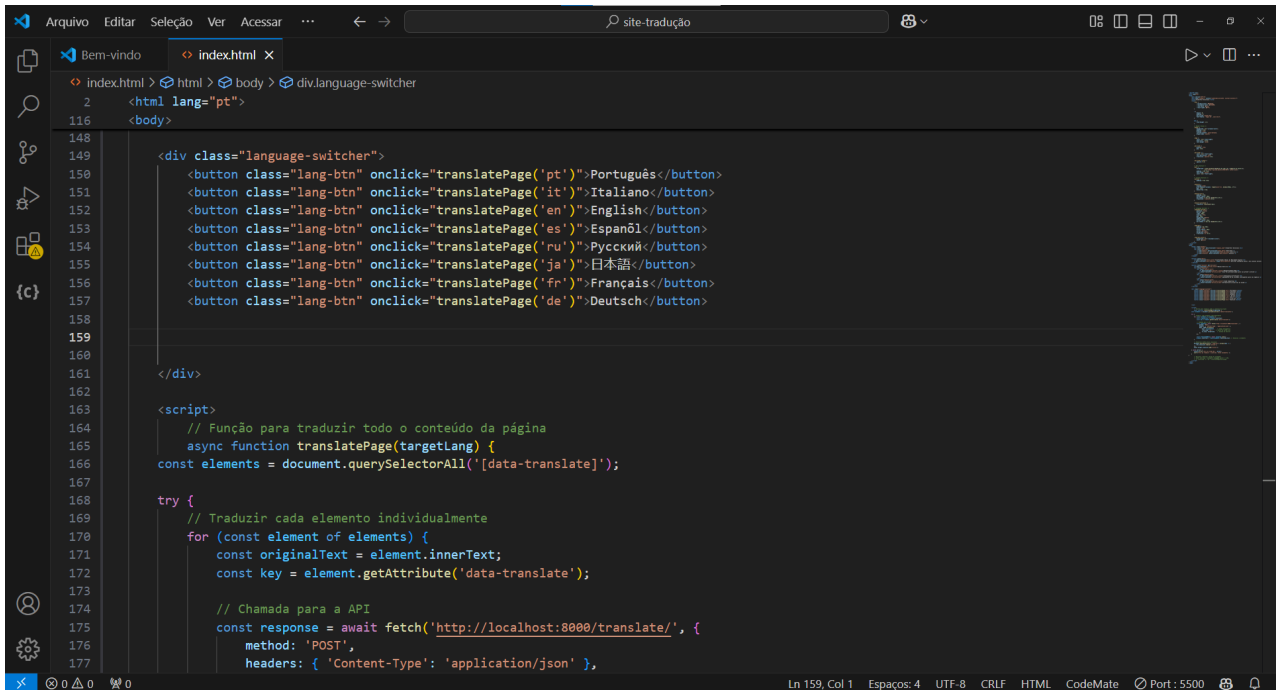
A tradução aparecerá aqui...



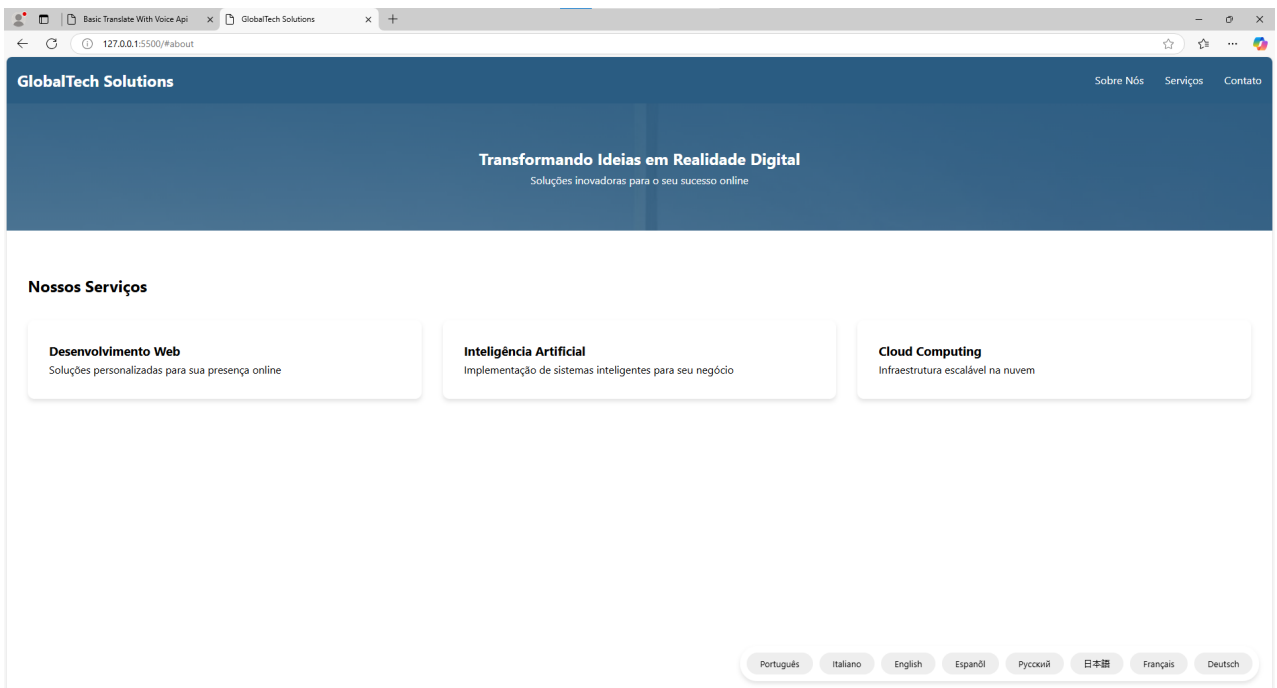
Traduzir

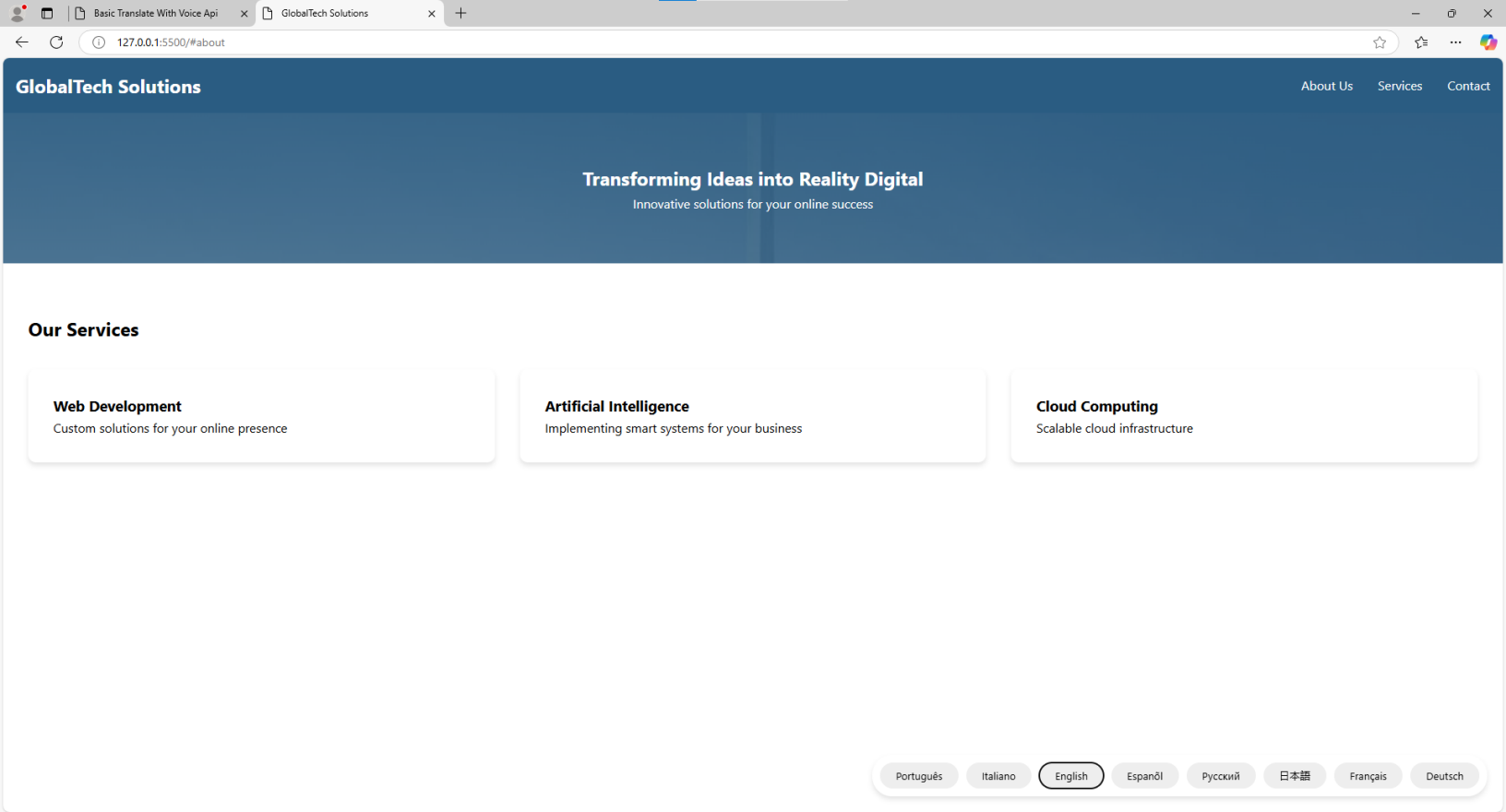


Some other tests using Api/Web App to translate pages:



```
Arquivo  Editar  Seleção  Ver  Acessar  ...  site-tradução
Bem-vindo  index.html x
index.html > html > body > div.language-switcher
2    <html lang="pt">
116  </body>
148
149
150  <div class="language-switcher">
151    <button class="lang-btn" onclick="translatePage('pt')">Português</button>
152    <button class="lang-btn" onclick="translatePage('it')">Italiano</button>
153    <button class="lang-btn" onclick="translatePage('en')">English</button>
154    <button class="lang-btn" onclick="translatePage('es')">Español</button>
155    <button class="lang-btn" onclick="translatePage('ru')">Русский</button>
156    <button class="lang-btn" onclick="translatePage('ja')">日本語</button>
157    <button class="lang-btn" onclick="translatePage('fr')">Français</button>
158    <button class="lang-btn" onclick="translatePage('de')">Deutsch</button>
159
160
161  </div>
162
163  <script>
164    // Função para traduzir todo o conteúdo da página
165    async function translatePage(targetLang) {
166      const elements = document.querySelectorAll('[data-translate]');
167
168      try {
169        // Traduzir cada elemento individualmente
170        for (const element of elements) {
171          const originalText = element.innerText;
172          const key = element.getAttribute('data-translate');
173
174          // Chamada para a API
175          const response = await fetch('http://localhost:8080/translate/', {
176            method: 'POST',
177            headers: { 'Content-Type': 'application/json' },
```





# Transforming Ideas into Reality Digital

Innovative solutions for your online success

## Our Services

### Web Development

Custom solutions for your online presence

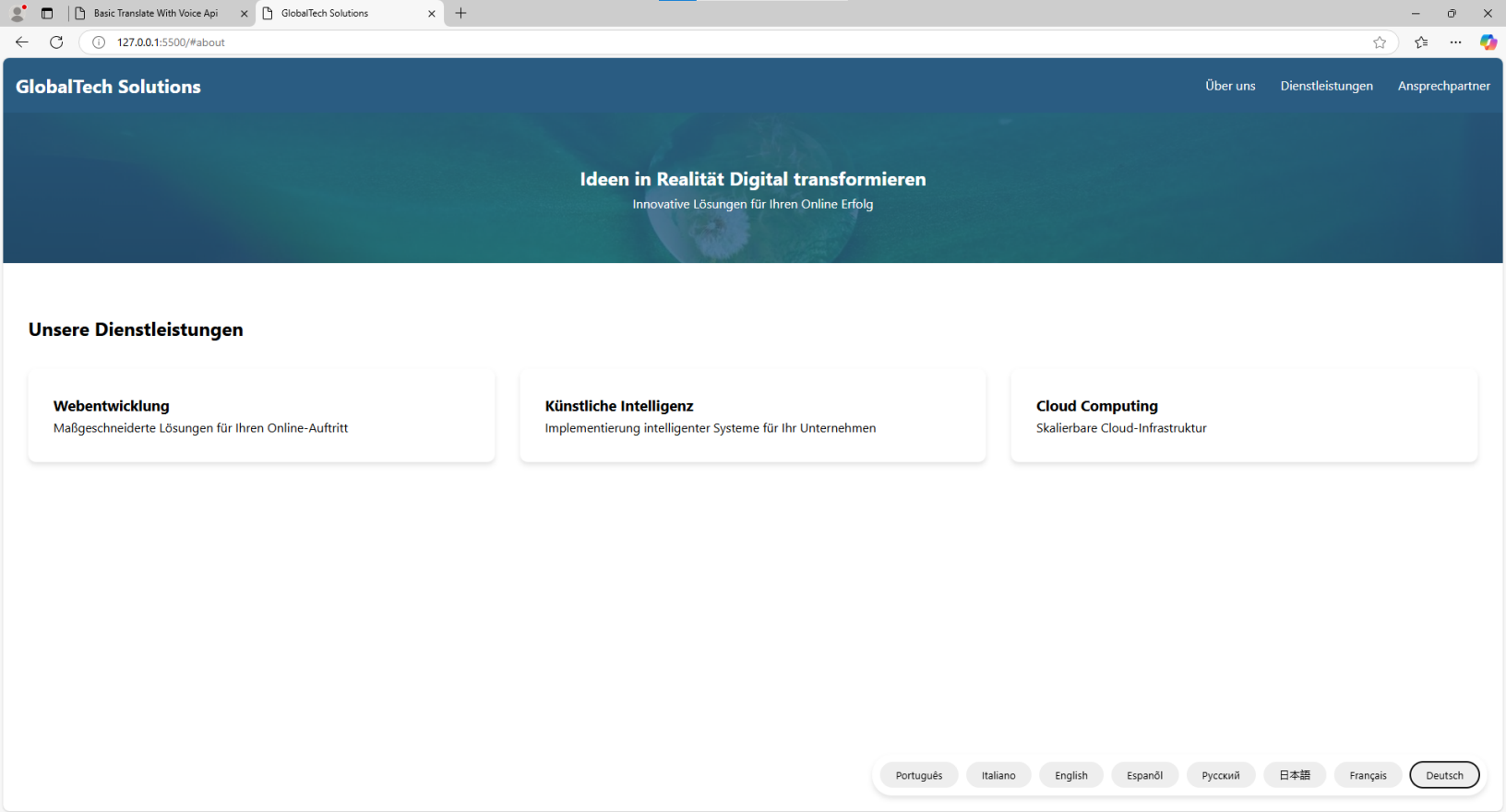
### Artificial Intelligence

Implementing smart systems for your business

### Cloud Computing

Scalable cloud infrastructure





# Ideen in Realität Digital transformieren

Innovative Lösungen für Ihren Online Erfolg

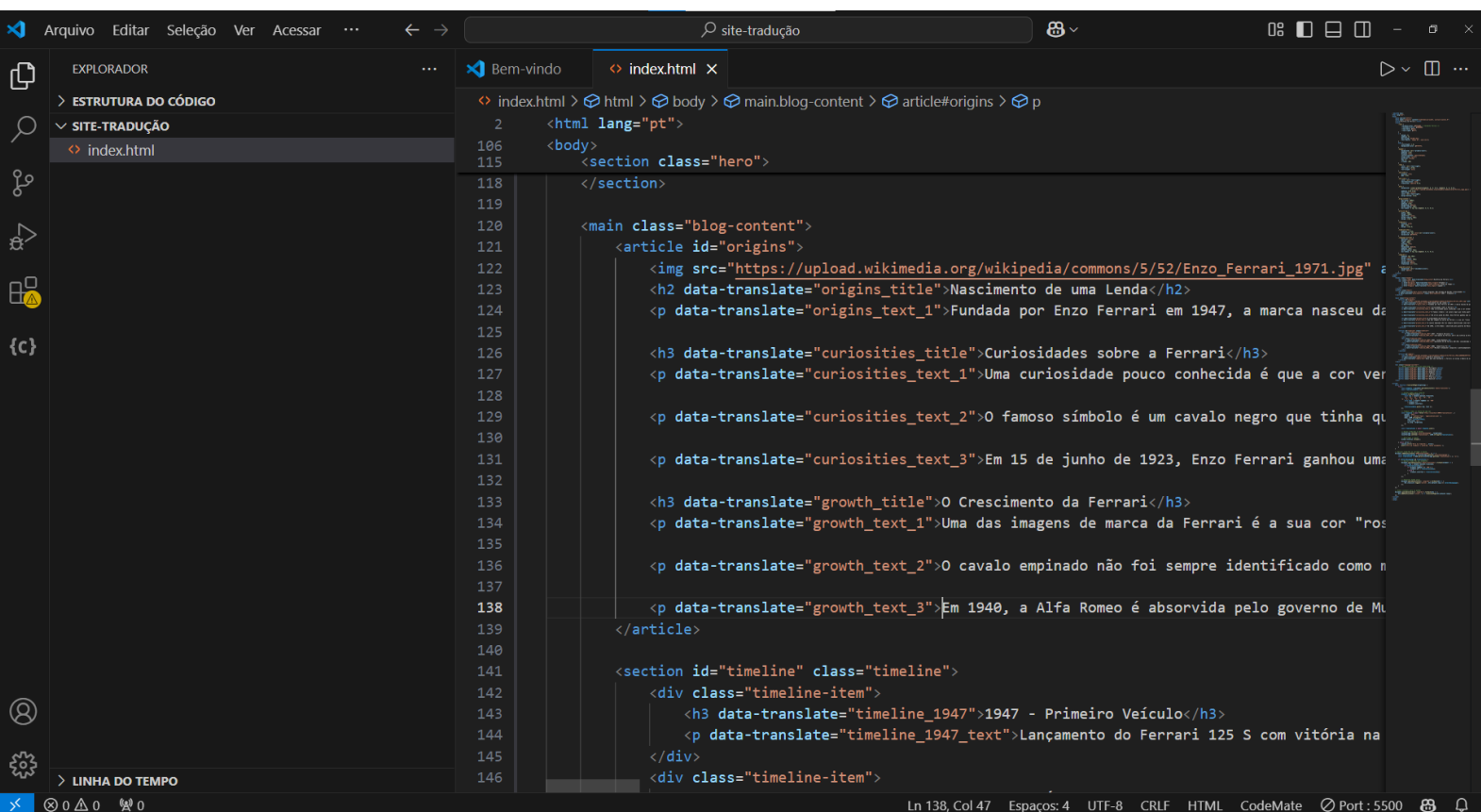
## Unsere Dienstleistungen

**Webentwicklung**  
Maßgeschneiderte Lösungen für Ihren Online-Auftritt

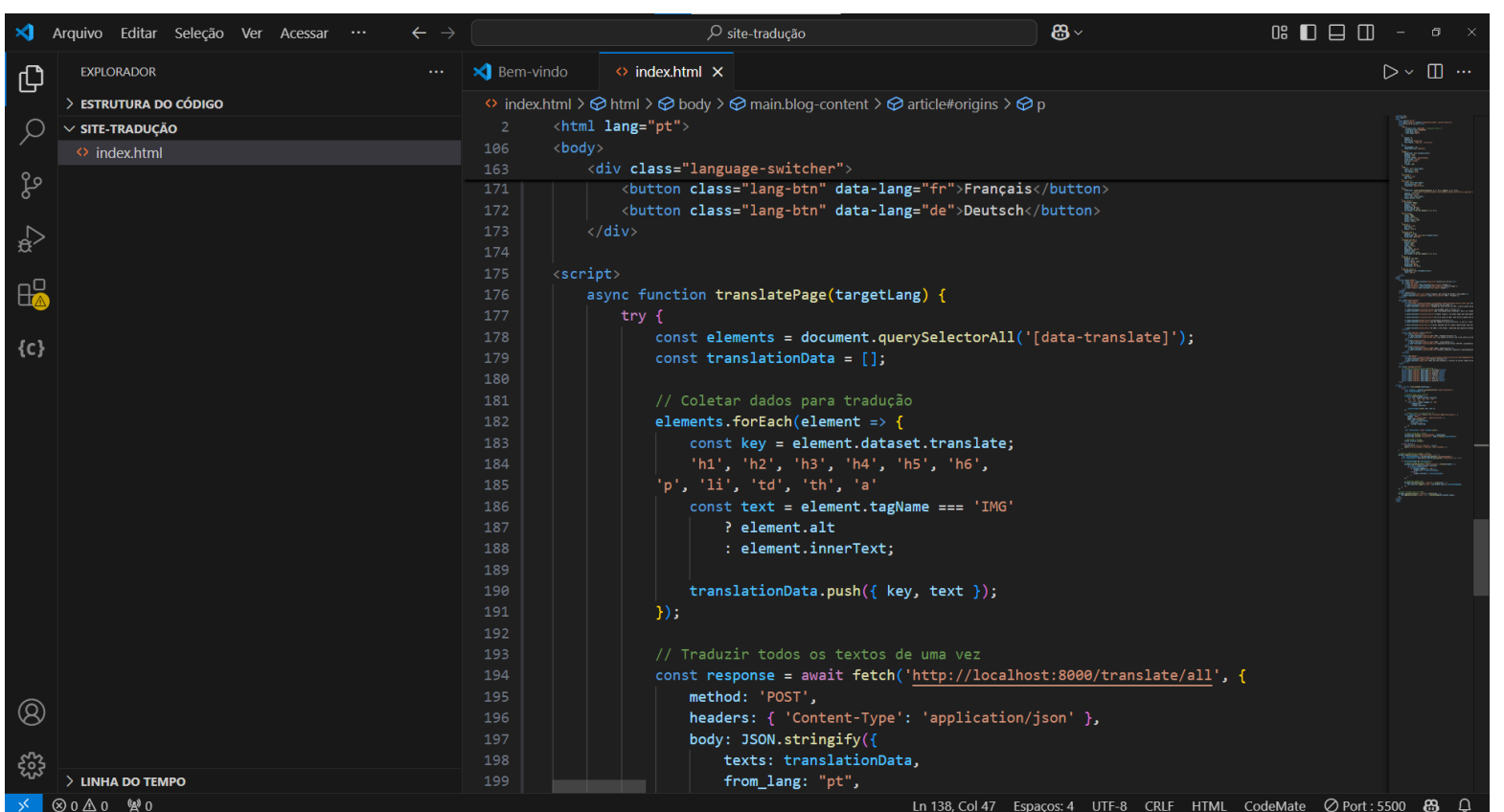
**Künstliche Intelligenz**  
Implementierung intelligenter Systeme für Ihr Unternehmen

**Cloud Computing**  
Skalierbare Cloud-Infrastruktur

observe the translation of the page from "PT" Originally to "EN" AND HOW THE TRANSLATION WAS IMPLEMENTED;



```
index.html > html > body > main.blog-content > article#origins > p
2    <html lang="pt">
106  <body>
115    <section class="hero">
118      </section>
119
120    <main class="blog-content">
121      <article id="origins">
122        
123        <h2 data-translate="origins_title">Nascimento de uma Lenda</h2>
124        <p data-translate="origins_text_1">Fundada por Enzo Ferrari em 1947, a marca nasceu da
125
126        <h3 data-translate="curiosities_title">Curiosidades sobre a Ferrari</h3>
127        <p data-translate="curiosities_text_1">Uma curiosidade pouco conhecida é que a cor ver
128
129        <p data-translate="curiosities_text_2">O famoso símbolo é um cavalo negro que tinha qu
130
131        <p data-translate="curiosities_text_3">Em 15 de junho de 1923, Enzo Ferrari ganhou uma
132
133        <h3 data-translate="growth_title">O Crescimento da Ferrari</h3>
134        <p data-translate="growth_text_1">Uma das imagens de marca da Ferrari é a sua cor "ros
135
136        <p data-translate="growth_text_2">O cavalo empinado não foi sempre identificado como m
137
138        <p data-translate="growth_text_3">Em 1940, a Alfa Romeo é absorvida pelo governo de Mu
139      </article>
140
141      <section id="timeline" class="timeline">
142        <div class="timeline-item">
143          <h3 data-translate="timeline_1947">1947 - Primeiro Veículo</h3>
144          <p data-translate="timeline_1947_text">Lançamento do Ferrari 125 S com vitória na
145        </div>
146        <div class="timeline-item">
```



```
index.html > html > body > main.blog-content > article#origins > p
2    <html lang="pt">
106  <body>
163    <div class="language-switcher">
171      <button class="lang-btn" data-lang="fr">Français</button>
172      <button class="lang-btn" data-lang="de">Deutsch</button>
173    </div>
174
175    <script>
176      async function translatePage(targetLang) {
177        try {
178          const elements = document.querySelectorAll('[data-translate]');
179          const translationData = [];
180
181          // Coletar dados para tradução
182          elements.forEach(element => {
183            const key = element.dataset.translate;
184            ['h1', 'h2', 'h3', 'h4', 'h5', 'h6',
185            'p', 'li', 'td', 'th', 'a']
186            const text = element.tagName === 'IMG'
187              ? element.alt
188              : element.innerText;
189
190            translationData.push({ key, text });
191          });
192
193          // Traduzir todos os textos de uma vez
194          const response = await fetch('http://localhost:8000/translate/all', {
195            method: 'POST',
196            headers: { 'Content-Type': 'application/json' },
197            body: JSON.stringify({
198              texts: translationData,
199              from_lang: "pt",
```

# Cavalo Erguido; Uma Jornada de Paixão e Velocidade

1947 - Presente



## Nascimento de uma Lenda

Fundada por Enzo Ferrari em 1947, a marca nasceu da paixão pelas corridas. O primeiro carro de estrada, o 125 S, equipado com um motor V12 de 1.5L, marcou o início de uma era.

### Curiosidades sobre a Ferrari

Uma curiosidade pouco conhecida é que a cor vermelha icônica da Ferrari, muitas vezes associada à marca, foi originalmente escolhida como a cor oficial para carros de corrida italianos na década de 1920. Essa cor ficou tão emblemática que, mesmo quando os carros de rua começaram a ser produzidos, a Ferrari manteve o vermelho como sua assinatura, embora também ofereça uma gama de outras cores para os clientes. Além disso, o fundador Enzo Ferrari era conhecido por ser bastante exigente e até mesmo temperamental, o que levou a uma cultura interna de busca pela perfeição em cada detalhe. O famoso símbolo é um cavalo negro que tinha quatro patas apoiadas no chão e agora tem duas, empinado num fundo amarelo, sempre com as letras S F de Scuderia Ferrari. O cavalo era originalmente o símbolo do Conde Francesco Baracca, um lendário "asso" (ás) da força aérea italiana durante a Primeira Guerra Mundial, que o pintou na lateral de seus aviões. Baracca morreu muito jovem em 19 de Junho de 1918, abatido após 34 duelos vitoriosos e muitas vitórias em grupo, tornando-se assim um herói nacional. Baracca queria o cavalo empinado nos seus aviões porque "Battaglione Aviatori", fora inscrita num regimento da Cavalaria (as forças primeiros anos e não tinham administração separada), e também porque ele mesmo tinha a reputação

Português

Italiano

English

Español

Русский

日本語

Français

Deutsch

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Anônima

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Todos os favoritos

História da Ferrari

OrigensLinha do TempoLegado

"Battaglione Aviatori", fora inscrita num regimento da Cavalaria (as forças aéreas estavam nos seus primeiros anos e não tinham administração separada), e também porque ele mesmo tinha a reputação de melhor cavaliere (cavaleiro) de sua equipe.

Em 15 de junho de 1923, Enzo Ferrari ganhou uma corrida no circuito de Sívio em Ravena onde conheceu a Condessa Palina, mãe de Baracca. A Condessa pediu que ele usasse o desenho de um cavalo nos seus carros, sugerindo que isso lhe daria boa sorte, mas a primeira corrida na qual a Alfa Romeo permitiu o uso do cavalo nos carros da Scuderia foi onze anos depois, nas 24 Horas de Spa em 1932. A Ferrari ganhou. Ferrari deixou o cavalo negro como havia sido feito no avião de Baracca; contudo, ele adicionou um fundo amarelo porque era a cor símbolo de sua terra natal, Modena.

### O Crescimento da Ferrari

Uma das imagens de marca da Ferrari é a sua cor "rosso corsa" (vermelho de corrida). A utilização dessa cor teve início nos anos 1920, altura em que a entidade que viria a ser chamada de FIA, impunha que as marcas italianas teriam de apresentar cor vermelha, as francesas azul, as alemãs prateada, as holandesas laranja, as belgas amarela, as inglesas verde e as norte-americanas branca.

O cavalo empinado não foi sempre identificado como marca apenas da Ferrari: Fabio Taglioni usou-o nas suas motocicletas Ducati. O pai de Tagliani foi, de fato, um companheiro de Baracca e lutou com ele no 81º Esquadrão Aéreo, mas ao passo que a fama da Ferrari cresceu, Ducati abandonou o cavalo; esse pode ter sido o resultado de um acordo privativo entre as duas marcas.

Em 1940, a Alfa Romeo é absorvida pelo governo de Mussolini e utilizada como porta-estandarte do seu governo. Por esta altura a Scuderia Ferrari, impedida de ingressar em competições automobilísticas, passa a construir acessórios para aviões e peças para máquinas. Com o final da Segunda Guerra Mundial e queda do regime de Mussolini, é fundada a marca Ferrari, com o lançamento do seu primeiro modelo de estrada em 1947. O modelo lançado nesse ano foi a Ferrari 125 Sport com um motor V12 de 1500 cc.

1947 - Primeiro Veículo

Lançamento do Ferrari 125 S com vitória na Grande Prêmio de Roma

1963 - Ícone Mundial

Português

Italiano

English

Español

Русский

日本語

Français

Deutsch





# Erected horse; A Journey of Passion and Speed

1947 - Present



## Birth of a Legend

Founded by Enzo Ferrari in 1947, the brand was born of passion for racing. The first road car, the 125 S, equipped with a 1.5L V12 engine, marked the beginning of an era.

## Curiosities about the Ferrari

An unfamiliar curiosity is that the iconic red color of Ferrari, often associated with the brand, was originally chosen as the official color for Italian racing cars in the 1920s. This color became so emblematic that even when street cars began to be produced, Ferrari kept the red as its signature, although it also offers a range of other colors for customers. In addition, the founder Enzo Ferrari was known to be quite demanding and even temperamental, which led to an internal culture of search for perfection in every detail.

The famous symbol is a black horse that had four paws backed on the ground and now has two, wrapped on a yellow background, always with the letters S F of Scuderia Ferrari. The horse was originally the symbol of Count Francesco Baracca, a legendary "asso" of the Italian air force during World War I, who painted it on the side of his planes. Baracca died very young on June 19, 1918, shot down after 34 victorious duels and many group victories, thus becoming a national hero. Baracca wanted the horse embedded in his planes because his squadron, the "Battaglione Aviatori", Cavalry regiment (the air forces were in their early years and had no separation because he himself had the reputation of his team's best cavaliere (cavaleiro).

Português

Italiano

English

Español

Русский

日本語

Français

Deutsch

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História da Ferrari

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🔍 localhost:5500

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Anônimo

⋮

📁 Todos os favoritos

History of Ferrari

OriginsTimelineLegacy

Cavalry regiment (the air forces were in their early years and had no separate administration), and also because he himself had the reputation of his team's best cavaliere (cavaleiro).

On June 15, 1923, Enzo Ferrari won a race on the Silvio circuit in Ravenna where he met Countess Palina, mother of Baracca. The Countess asked him to use the design of a horse in his cars, suggesting that it would give him good luck, but the first race in which Alfa Romeo allowed the use of the horse in the cars of Scuderia was eleven years later, in the 24 Hours of Spa in 1932. Ferrari won. Ferrari left the black horse as it had been made on Baracca's plane; however, he added a yellow background because it was the symbol color of his homeland, Modena.

### The Growth of Ferrari

One of the Ferrari brand images is its "coloured rosus" color (running red). The use of this color began in the 1920s, when the entity that was to be called FIA, claimed that Italian brands would have to present red, French blue, German silver, Dutch orange, Belgian yellow, English green and American white.

The empinado horse has not always been identified as the only brand of Ferrari: Fabio Tagliani used it on his Ducati motorcycles. Tagliani's father was indeed a companion of Baracca and fought with him at the 81st Air Squadron, but while Ferrari's fame grew, Ducati abandoned the horse; this could have been the result of a private agreement between the two brands.

In 1940, Alfa Romeo is absorbed by the government of Mussolini and used as the flagship of its government. By this time Scuderia Ferrari, prevented from entering automotive competitions, began to build accessories for aircraft and machine parts. With the end of World War II and the fall of the Mussolini regime, the Ferrari brand is founded, with the launch of its first road model in 1947. The model released that year was Ferrari 125 Sport with a V12 engine of 1500 cc.

#### 1947 - First Vehicle

Launch of Ferrari 125 S with victory in the Grand Prix of Rome

#### 1963 - World Icon

Presentation of the Ferrari 250 GTO, considered the most beautiful automotive creation of history

Português

Italiano

English

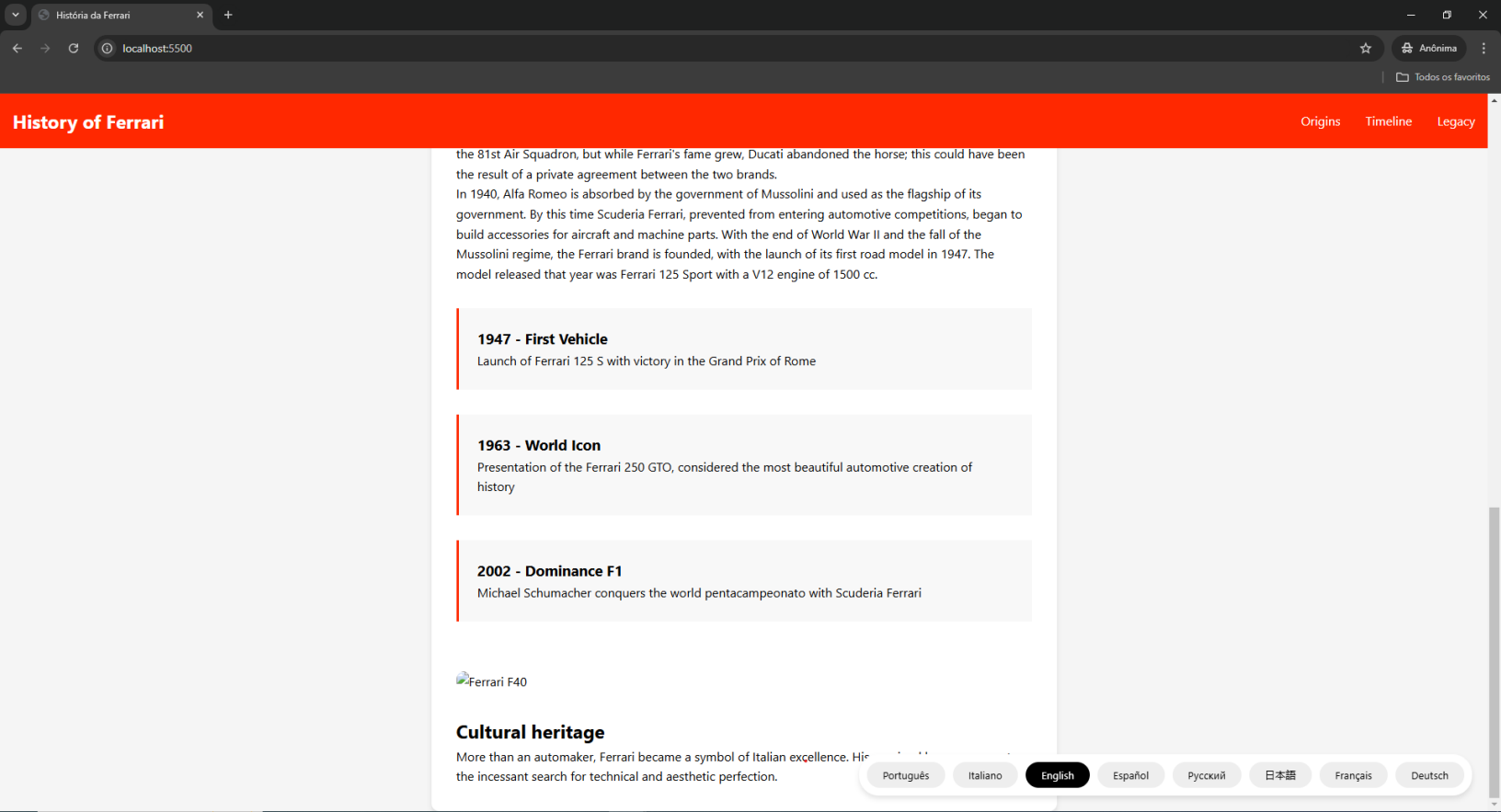
Español

Русский

日本語

Français

Deutsch



# History of Ferrari

Origins Timeline Legacy

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Launch of Ferrari 125 S with victory in the Grand Prix of Rome

## 1963 - World Icon

Presentation of the Ferrari 250 GTO, considered the most beautiful automotive creation of history

## 2002 - Dominance F1

Michael Schumacher conquers the world pentacampeonato with Scuderia Ferrari

 Ferrari F40

## Cultural heritage

More than an automaker, Ferrari became a symbol of Italian excellence. His incessant search for technical and aesthetic perfection.

Português

Italiano

English

Español

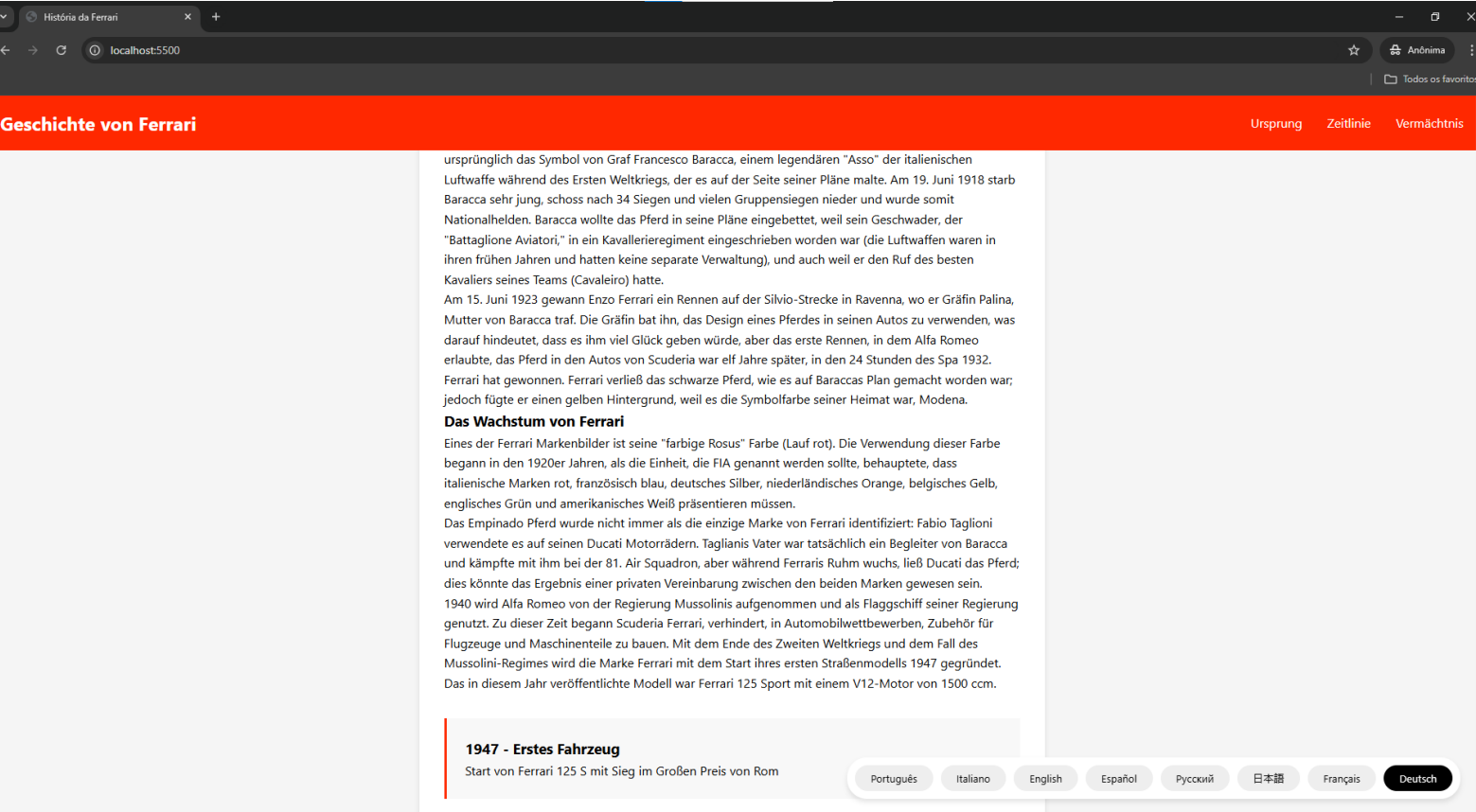
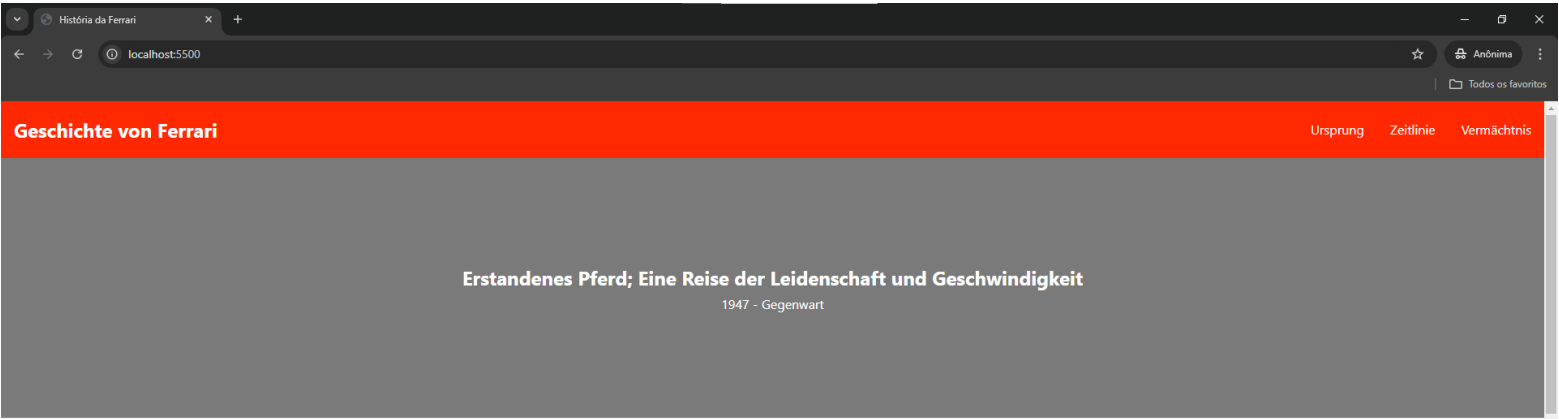
Русский

日本語

Français

Deutsch

now translating to ''DE''





## ## API Access and Usage Rights

This API is a proprietary solution. To use this API in your projects:

### 1. \*\*Request Access\*\*

- Contact the developer through GitHub: [@fat prod](https://github.com/fatprod)

- Include in your request:

- Your intended use case
- Expected translation volume
- Project description
- Company/Organization (if applicable)

### 2. \*\*Authorization Process\*\*

- After your request is received, you will be contacted regarding:
- API access credentials
- Usage terms and conditions
- Implementation support options
- Pricing structure (if applicable)

### 3. \*\*Support and Implementation\*\*

- Direct support available through GitHub issues
- Technical documentation access provided upon approval
- Implementation guidance available