

.NET Usergroup Bern

KNOW YOUR WARM-UP

The speaker

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- Since over 10 years Software engineer
- Software architect at Mathys & Scheitlin AG
- Education: Primar- und Realschullehrer, dipl. Ing. FH in Informatik, MAS-IT
- Blog: blog.eweibel.net
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The company

- Mathys & Scheitlin AG
- www.m-s.ch
- Mehr als 60 Mitarbeiter
- Entwickelt Web-Lösungen für Sozialversicherungen
- Technologien: .NET 4.0, ASP.NET, TableModule-Approach, MSTest
- Tools: VisualStudio 2010, ReSharper, SQL Server 2008
- **Sucht: Senior .NET Developer**



The idea



The context



The problem

$E_k = \frac{1}{2} m v^2 \quad \tan^2 \theta_B = \frac{m_2}{m_1} = m_{21} \quad \rho V = n R T \quad \vec{\Psi} = \iint \vec{B} d\vec{S} = A D \quad H_\lambda = \frac{\Delta M_e}{\Delta \lambda}$
 $-\frac{\hbar^2}{2m} \frac{d^2 \psi}{dx^2} + V \psi = E \psi \quad M_e = \sigma T^4 \quad \phi_e = \frac{L}{\Delta t} \int \frac{\Delta \phi}{2\pi} = \frac{\Delta x}{2\pi} = \frac{x_2 - x_1}{2\pi} \quad V = c/\lambda \quad \Phi = NBS$
 $U_{ef} = U_m \quad E = \hbar \omega \quad U = \frac{W_{AB}}{\epsilon - 1} = \frac{|E_{PA} - E_{PB}|}{\sqrt{1 - v^2/c^2}} \quad X_L = \frac{U_m}{I_m} = \omega L = 2\pi f L \quad F_g = \frac{m_1 m_2}{2\pi d} \quad \vec{F}_m = \vec{B} I l = \frac{\mu I_1 I_2}{2\pi d} l$
 $\vec{B} = \mu_0 \frac{NI}{2r} \quad v = \frac{nh}{2\pi r m_e} \quad \phi_e = \frac{e}{\hbar} \frac{Q}{r} \quad \mu = N m_0 = \frac{Q}{v} \frac{M_m}{N_A} \quad E = \frac{E_c}{a} \int \sin(\omega t + \phi) dy \quad \vec{F}_m = \frac{C}{T} k = \pm \sqrt{\frac{2m}{\hbar^2}} (E - V_0)$
 $K = \frac{p^2}{2m} \quad m_0 = \frac{M_m}{N_A} = M_r \cdot 10^{-3} \quad l_e = l_0 (1 + d \Delta t) \quad I = \frac{U_e}{R + R_i} \quad \omega = 2\pi f$
 $\lambda = \frac{h}{\sqrt{2eUm_e}} \quad R = \rho \frac{l}{S} \quad E = mc^2 \quad \sin \alpha = \frac{v_1}{v_2} = \frac{m_2}{m_1} \quad v = \frac{1}{\sqrt{\epsilon \mu}} = \frac{c}{\sqrt{\epsilon_r \mu_r}}$
 $f_0 = \frac{1}{2\pi} \sqrt{\frac{g}{e}} \quad \psi(\alpha) = \sqrt{2/L} \sin \frac{n\pi x}{L} \quad E = \frac{1}{2} \hbar \omega / k_m \quad \beta = \frac{\Delta I c}{\Delta t} \quad \phi_e = \frac{\Delta E}{\Delta t} \quad \frac{m_1}{x} + \frac{m_2}{x'} = \frac{m_2 - m_1}{v}$
 $\oint \vec{B} d\vec{l} = \mu_0 \iint \vec{J} d\vec{S} \quad \vec{S} = \frac{1}{\mu_0} (\vec{E} \times \vec{B}) \quad E_k = \frac{h^2}{8mL^2} \quad \oint \vec{D} d\vec{S} = Q^*$
 $v_k = \sqrt{\frac{3kT}{m_0}} = \sqrt{\frac{3kT N_A}{M_m}} = \sqrt{\frac{3R_m T}{M_r \cdot 10^{-3}}} \quad E = \hbar k^2 \quad 1 \text{ pc} = \frac{1 \text{ AU}}{r} \quad S R = \frac{U}{I} \quad F_v = \int F_n$
 $\lambda = \frac{h m_2}{T} \quad F_n = S h \rho g \quad f_0 = \frac{1}{2\pi \sqrt{CL}} \quad M = \int F d \cos \alpha \quad R$
 $\left(\frac{E_t}{E_0}\right)_{||} = \frac{2 \cos \theta_1 \cos \theta_2}{\cos(\theta_1 - \theta_2) \sin(\theta_1 + \theta_2)} \quad \int \vec{E} d\vec{l} = - \iint \frac{\partial \vec{B}}{\partial t} \cdot d\vec{S} \quad p = \frac{E}{c} = \frac{h f}{c} = \frac{h}{\lambda}$
 $E_y = E_0 \sin(kx - \omega t) \quad R = R_0 \sqrt{A} \quad S = \frac{1}{A} \frac{dW}{dt} \quad \oint \vec{H} d\vec{l} = \iint (\vec{J} + \frac{\partial \vec{D}}{\partial t}) \cdot d\vec{S} \quad \phi = mc \Delta t \quad F_g = g r \frac{M_0 M_2}{r^2}$
 $W = F \cdot s \cdot \cos \alpha \quad L = 10 \log \frac{I}{I_0} \quad \Delta \psi = \frac{2\pi \Delta x}{\lambda} = \frac{2\pi d \sin \theta}{\lambda} = \frac{2\pi dy}{xL}$
 $\oint \vec{B} d\vec{l} = \mu_0 \sum I_i \quad P = \frac{F}{\Delta S} = \frac{m \Delta V}{\Delta S \Delta t} \quad P = UI \quad h = \frac{1}{2} g t^2 \quad v = v_1 (1 + \beta \Delta t)$
 $C \quad R = \frac{(m-1)^2 + g^2}{(n+1)^2 + g^2} \quad f' = \frac{v_a \cdot v_b}{(m-1)(v_b - v_a)} \quad \nabla \times \left(-\frac{\partial \vec{B}}{\partial t}\right) = -\frac{\partial}{\partial t} (\text{rot } \vec{B}) = -\mu_0 \frac{\partial}{\partial t} \left(\frac{\partial \vec{B}}{\partial t}\right) = \epsilon_0 \mu_0 \frac{\partial^2 E}{\partial t^2}$

A solution



The warm-up

- Unit Testing at the beginning -> TDD
- 1 Verwaltungsfenster (inkl. Menueintrag)
- 5 Prozesse (einfache bis anspruchsvolle)
- 2 Reports (in Prozesse integriert)
- Ausbildungsdokument für neuen Mitarbeiter
- Ausbildungskonzept-Dokument für Betreuer

The coaching



The demo

The screenshot displays the AKIS/net web application interface. At the top, there is a search bar with the text "Person suchen" and a dropdown menu. Below the search bar, the text "100388 [nP] Muster Hans 4232 Fehren" is visible. The main navigation bar includes "Home", "MI", "Betrieb", "Verwaltung", and "?". The left sidebar contains a menu with the following items: "Prozessmonitor (startbare)", "Suchen", "Personenindex", "Person", "Dossier / Pendenzen / Notizen", "Versicherungen", "Leistungen", and "Inhouse Portal". The "Person" section is expanded, showing a list of personal data:

Person	
VersNr	756.4380.6980.40
Register-Nr.	475.53.336.119
Name	Muster Hans
Adresse (Domizil:SO)	Stuben Fehren
Familie/Kinder	1 Ehe, 5 Kinder
Geburtsdatum	05.08.53
Arbeitsvertrag	fehlt
Saldo	0.00
Buchungsaufträge	Keine

Below the "Person" section, there are three sub-sections:

- Dossier / Pendenzen / Notizen**

Dossier	4 / 0 (pend.)
Prozesse	kein Prozess
Pendenzen/Notizen	4 (4 pendent)/ 0
- Versicherungen**

Indiv. Konto	1 Kopf, 1 ZIK
BV-Konto	BB
- Leistungen**

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The "Inhouse Portal" section is also visible at the bottom of the sidebar.

The conclusion

- Mehrere Entwickler durch das warm-up erfolgreich produktiv
- Positives Feedback von neuen Mitarbeitern sowie von Vorgesetzten
- Anwendung kann später auch für eigene Experimente oder exploratives Testen verwendet werden

Any questions?