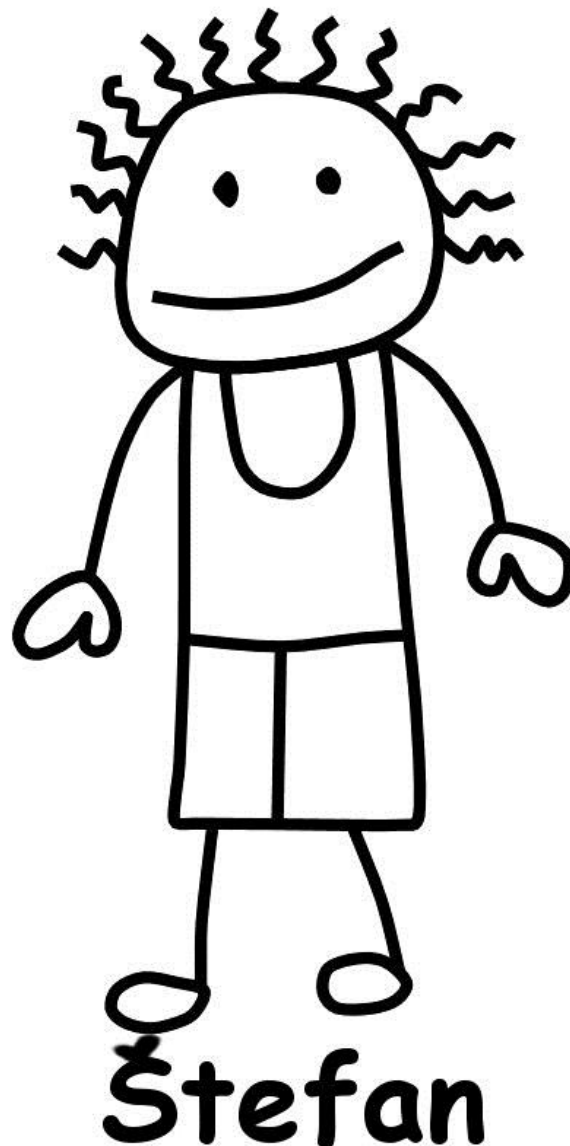


Seamless Teaching of dEaF children using AnimationNs

Introduction

Project purpose is mainly for deaf pupils in educational environments like for example teaching classrooms in schools. This project should give the pupils opportunity to read clearly the text without any handicap.

It is also not strictly application just for closed group of pupils, but it is for wide area purposes. Project helps with new innovative techniques and effective methods of learning. Because learning through images is very helpful for healthy people.



Text reader with built-in dictionary based on graphical illustrations and explanations of meanings of words and phrases

Script called **covert** is used to generated pictures with our own text strings. We totally genereted **1511** name of girls and boys from world known databases of names for United Kindom and Slovakia country names.

Also numbers were generated with usage animated fruits. We have numerals from **1** till **9**.

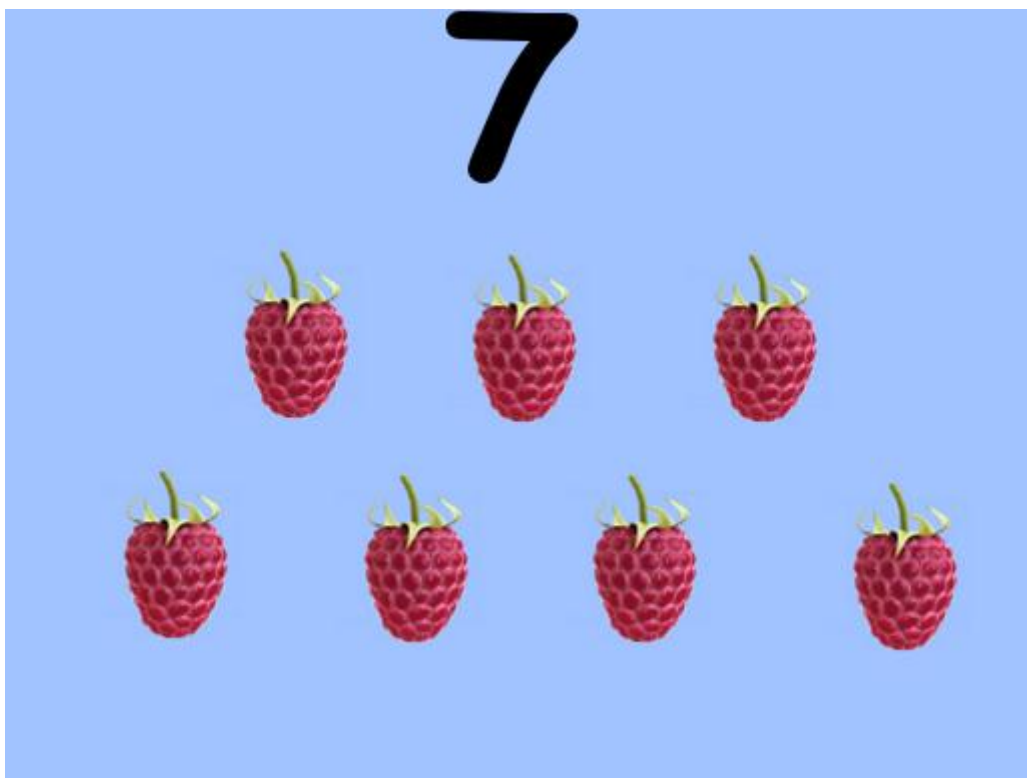


Figure Generated Numerals

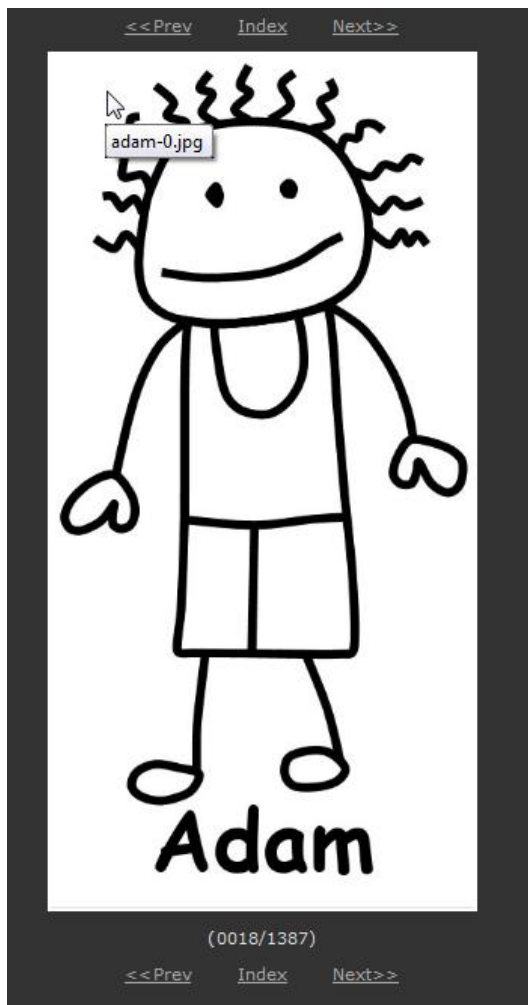


Figure Generated boy name on image

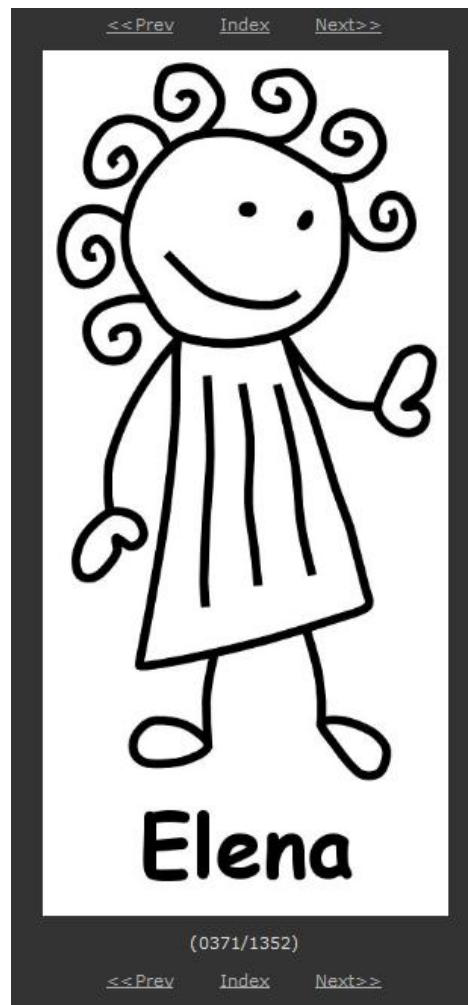


Figure Generated girl name on image



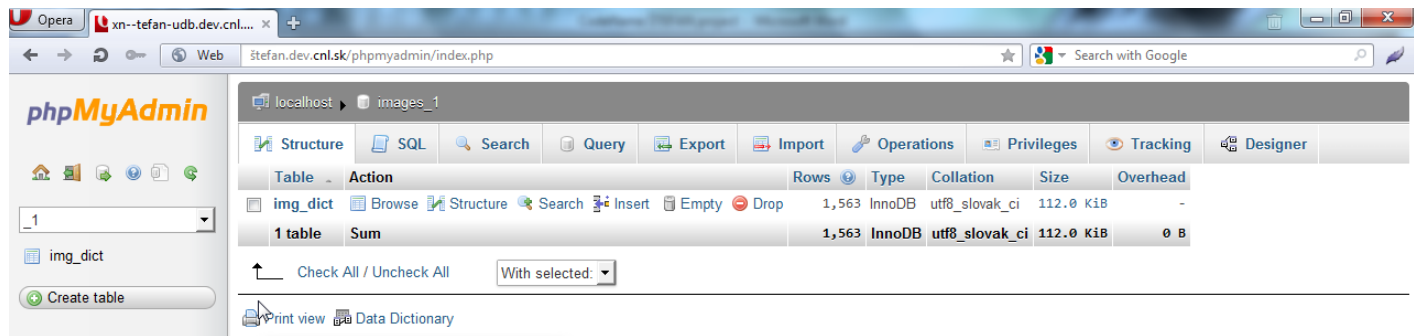


Figure MySQL table

	string	url	date	id	cesta
<input type="checkbox"/> Edit <input type="checkbox"/> Inline Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	vladimíra		2012-05-13	1471	Vladimíra.jpg
<input type="checkbox"/> Edit <input type="checkbox"/> Inline Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	hedviga		2012-05-13	1472	Hedviga.jpg
<input type="checkbox"/> Edit <input type="checkbox"/> Inline Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	uršula		2012-05-13	1473	Uršula.jpg
<input type="checkbox"/> Edit <input type="checkbox"/> Inline Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	alojza		2012-05-13	1474	Alojza.jpg
<input type="checkbox"/> Edit <input type="checkbox"/> Inline Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	kvetoslava		2012-05-13	1475	Kvetoslava.jpg
<input type="checkbox"/> Edit <input type="checkbox"/> Inline Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	sabína		2012-05-13	1476	Sabína.jpg
<input type="checkbox"/> Edit <input type="checkbox"/> Inline Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	dobromila		2012-05-13	1477	Dobromila.jpg

Figure Example of boys and girls names in db

<input type="checkbox"/> Edit <input type="checkbox"/> Inline Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	seven_colored_markin	http://tx.english-ch.com/teacher/ackie/adadnoun.jp...	2012-05-13	1557	seven_colored_marking_pens.jpg
<input type="checkbox"/> Edit <input type="checkbox"/> Inline Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	sam	http://upload.wikimedia.org/wikipedia/en/thumb/5/5...	2012-05-13	1558	sam.jpg
<input type="checkbox"/> Edit <input type="checkbox"/> Inline Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	blue_racing_bicycle	http://www.muppetcentral.com/collectibles/muppetpi...	2012-05-13	1559	blue_racing_bicycle.jpg

Figure MySQL searched strings and URL's

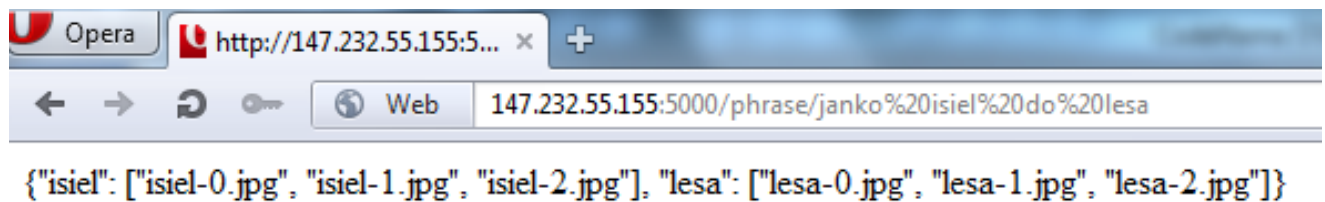


Figure Search engine

```
root@stefan:/home/cnluser# view /etc/mysql/my.cnf
```

Figure MySQL configuration file

```
[client]
port                = 3306
socket              = /var/run/mysqld/mysqld.sock

[mysqld_safe]
socket              = /var/run/mysqld/mysqld.sock
nice                = 0

[mysqld]
user                = mysql
pid-file            = /var/run/mysqld/mysqld.pid
socket              = /var/run/mysqld/mysqld.sock
port                = 3306
basedir             = /usr
datadir             = /var/lib/mysql
tmpdir              = /tmp
lc-messages-dir     = /usr/share/mysql
skip-external-locking
bind-address         = 0.0.0.0
key_buffer           = 32M
max_allowed_packet   = 16M
thread_stack         = 192K
thread_cache_size    = 8
myisam-recover       = BACKUP
query_cache_limit    = 512M
query_cache_size     = 1024M
query_cache_type     = ON
expire_logs_days     = 10
max_binlog_size      = 100M
table_cache          = 512M
sort_buffer          = 64M
thread_cache         = 128M
innodb_buffer_pool_size = 512M
join_buffer_size     = 512k
```

```

[mysqldump]
quick
quote-names
max_allowed_packet  = 16M

[mysql]

[isamchk]
key_buffer          = 512M
!includedir /etc/mysql/conf.d/
~

```

Figure Tuned configuration of MySQL

```

root@stefan:/home/cnluser# mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 784
Server version: 5.5.22-0ubuntu1 (Ubuntu)

Copyright (c) 2000, 2011, Oracle and/or its affiliates. All rights reserved.

Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use images_1;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> desc img_dict;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra          |
+-----+-----+-----+-----+-----+-----+
| string | varchar(20)   | NO   |     | NULL    |                |
| url    | varchar(250)  | NO   |     | NULL    |                |
| date   | date          | NO   |     | NULL    |                |
| id     | int(11)       | NO   | PRI | NULL    | auto_increment |
| cesta  | varchar(150)  | NO   |     | NULL    |                |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.01 sec)

mysql> █

```

Figure MySQL structure of table image dictionary

International Domain Name

We decided to use International Domain Name for website engine of our programming project. We are „walking“ with new information technologies, but we support fallback to normal Domain Name System (**DNS**).

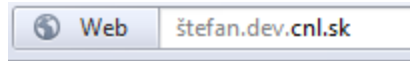


Figure 1 DNS

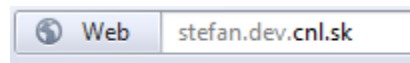


Figure 2 IDN

For Domain Name System is needed configuration of DNS entry in special type called PUNYCODE it is on Figure 4.

Results:

Description	Type	Result
Input String	UTF8	štefan.dev.cnl.sk
Prepared String	PUNYCODE	xn--tefan-udb.dev.cnl.sk

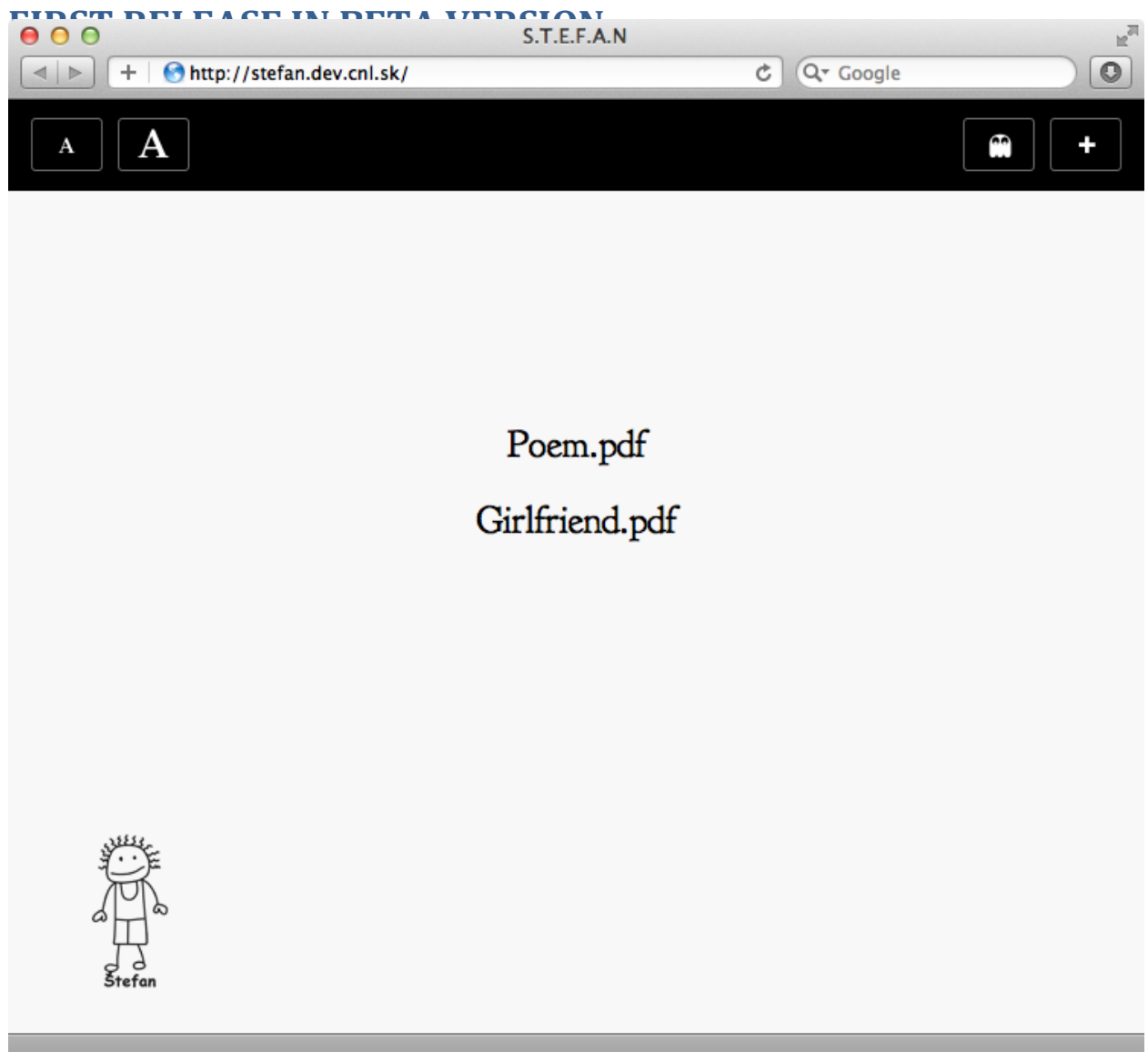
Figure 3 IDN

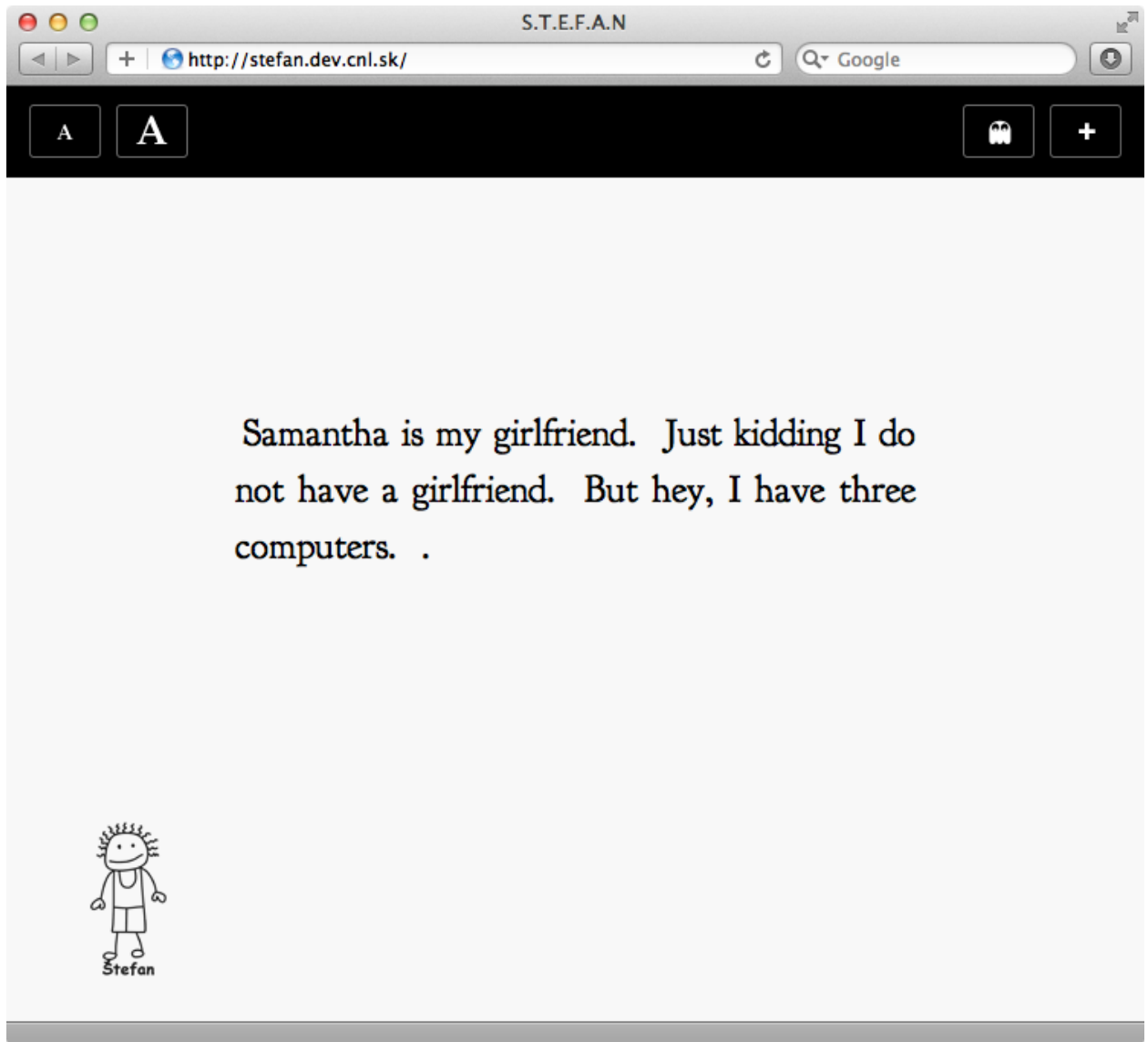
Source: <http://mct.verisign-grs.com/index.shtml>

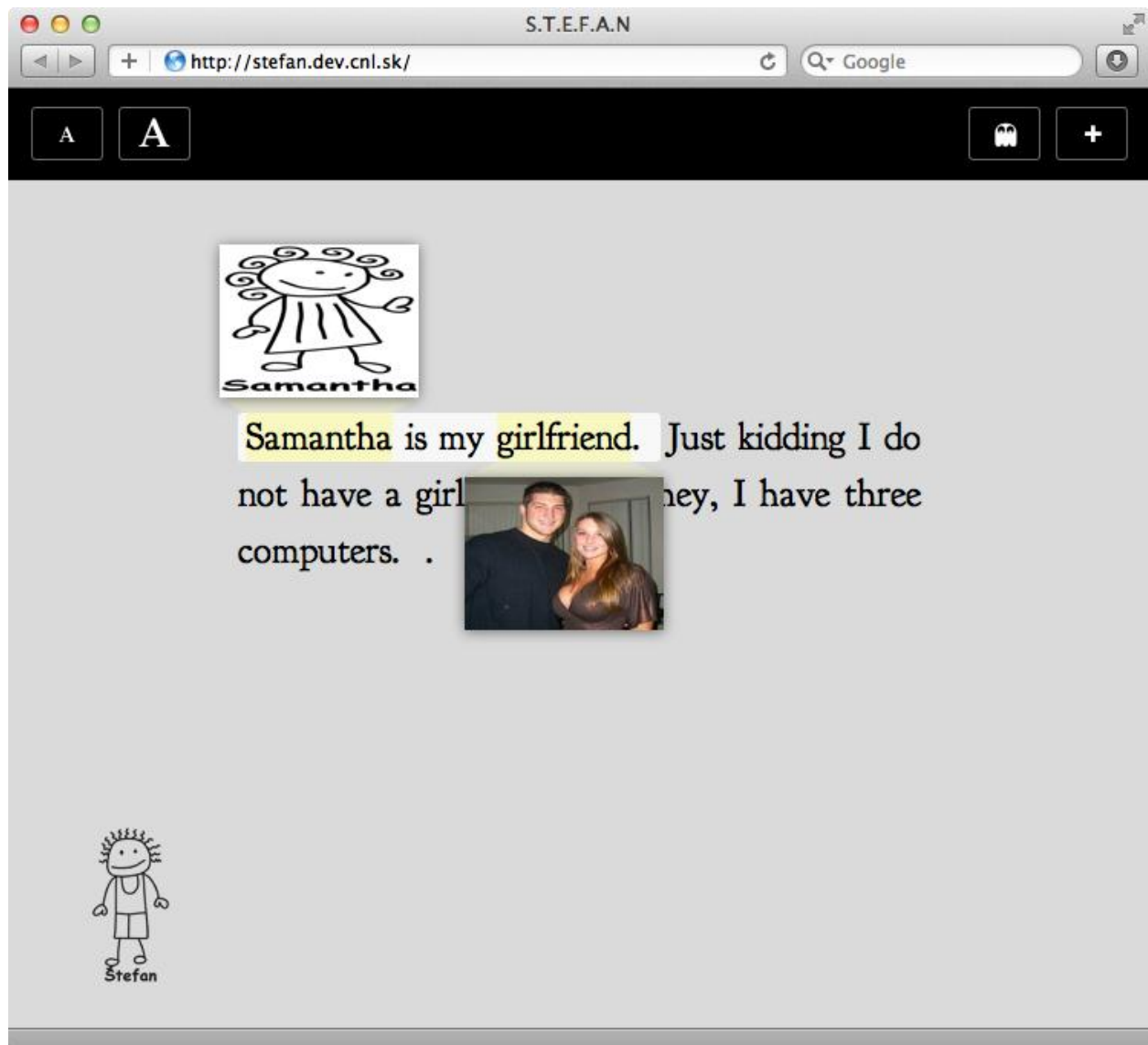
Crontab for generating image files that we store in file system and in MySQL database:

```
root@stefan:/home/cnluser# crontab -l | grep -v "#"  
*/5 * * * * /home/cnluser/llgal.sh 2> /dev/null  
root@stefan:/home/cnluser#
```

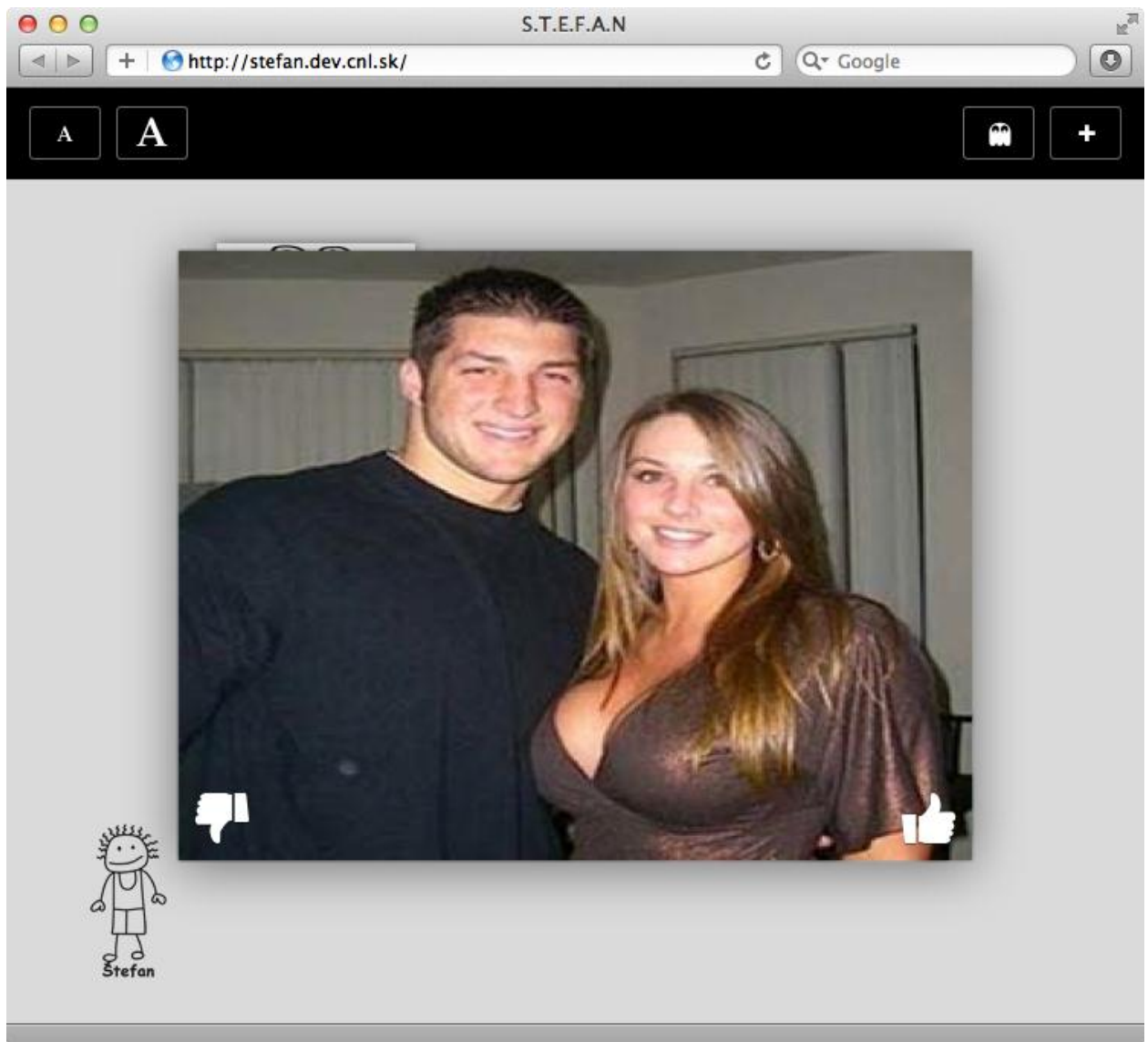
```
root@stefan:/home/cnluser/obrazky# cat /home/cnluser/llgal.sh  
#!/bin/bash  
I  
cd /var/www/images/  
llgal
```



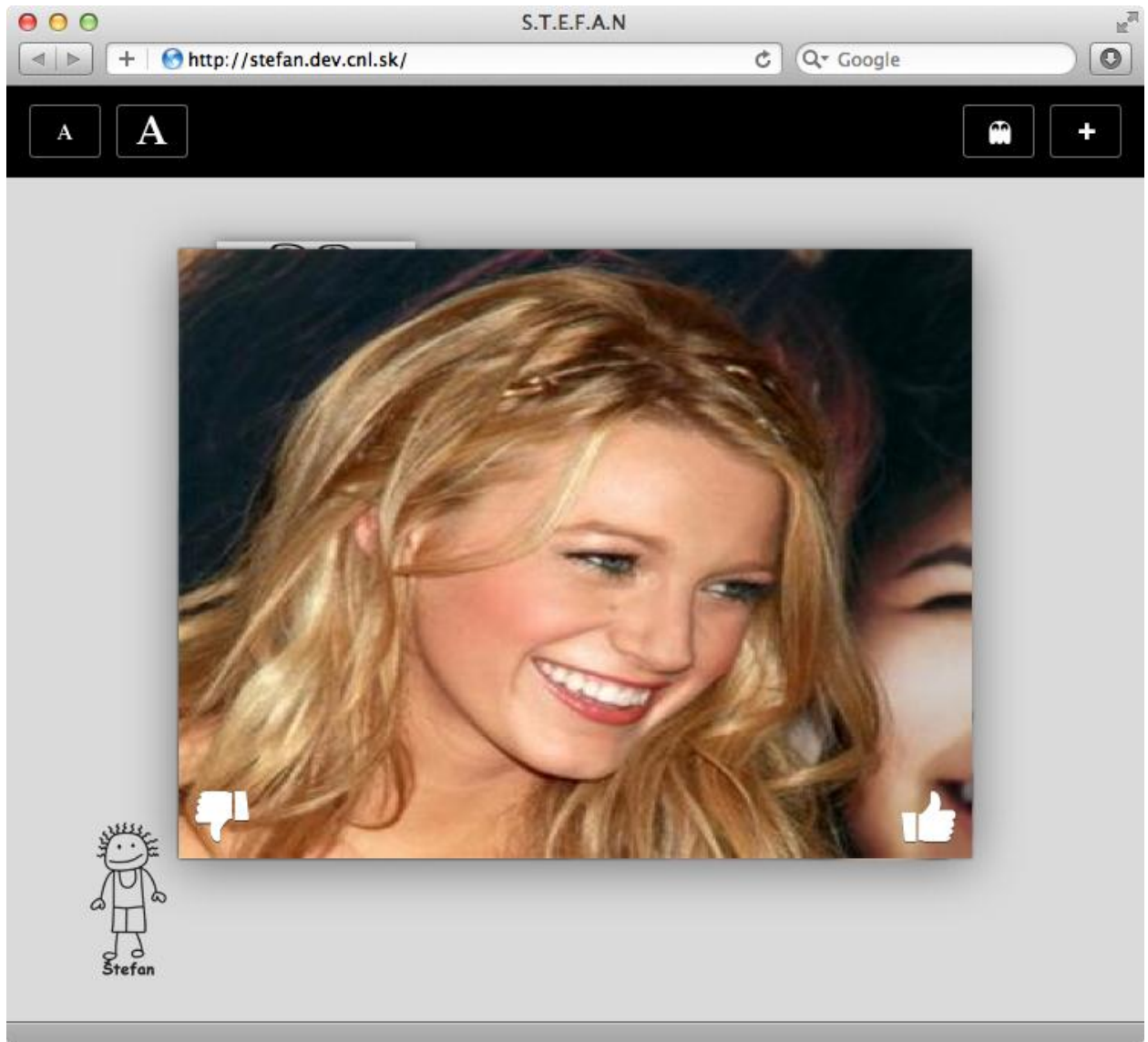


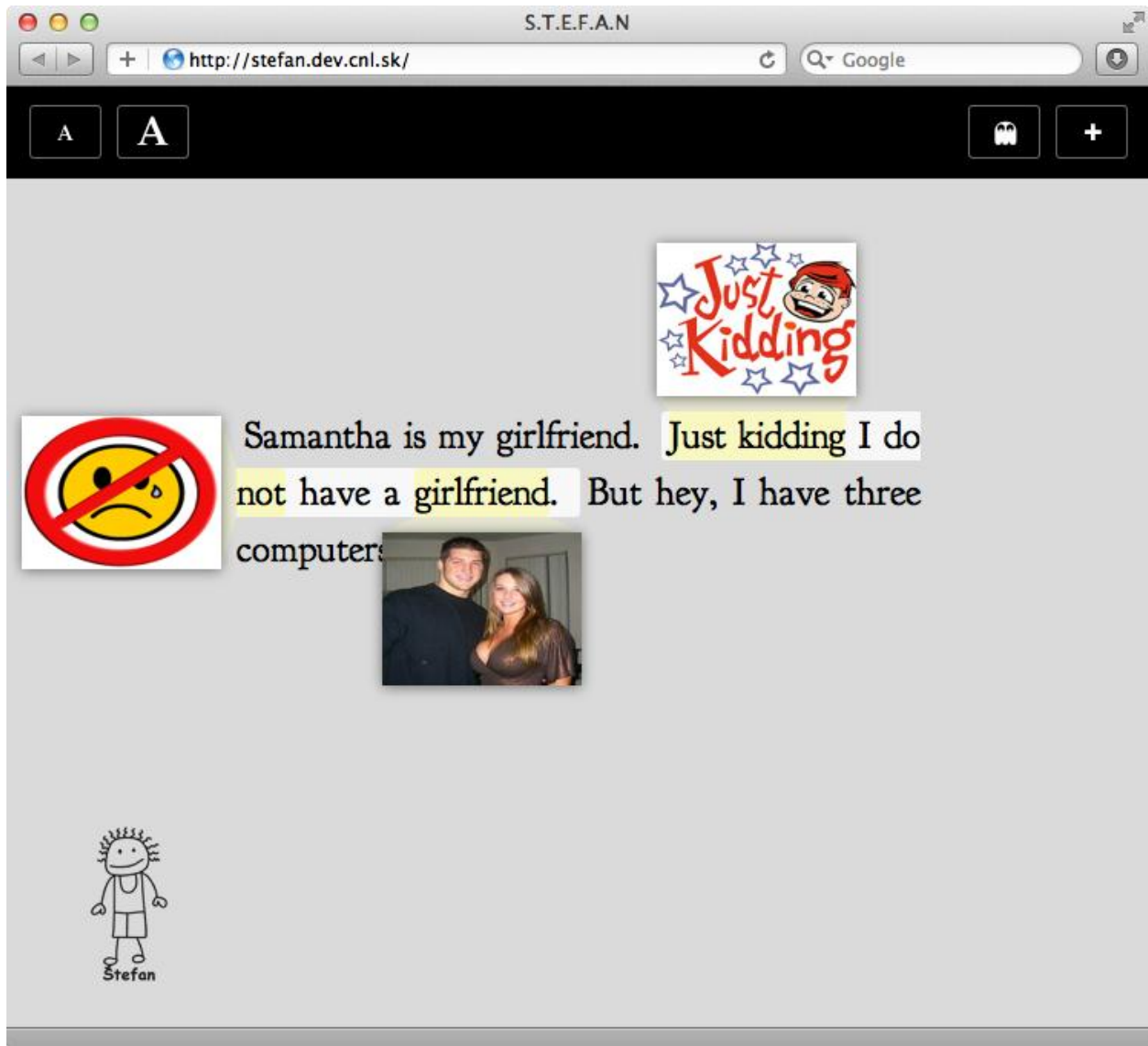


STEFAN



STEFAN







S.T.E.F.A.N

<http://stefan.dev.cnl.sk/> Google

What's on this picture?

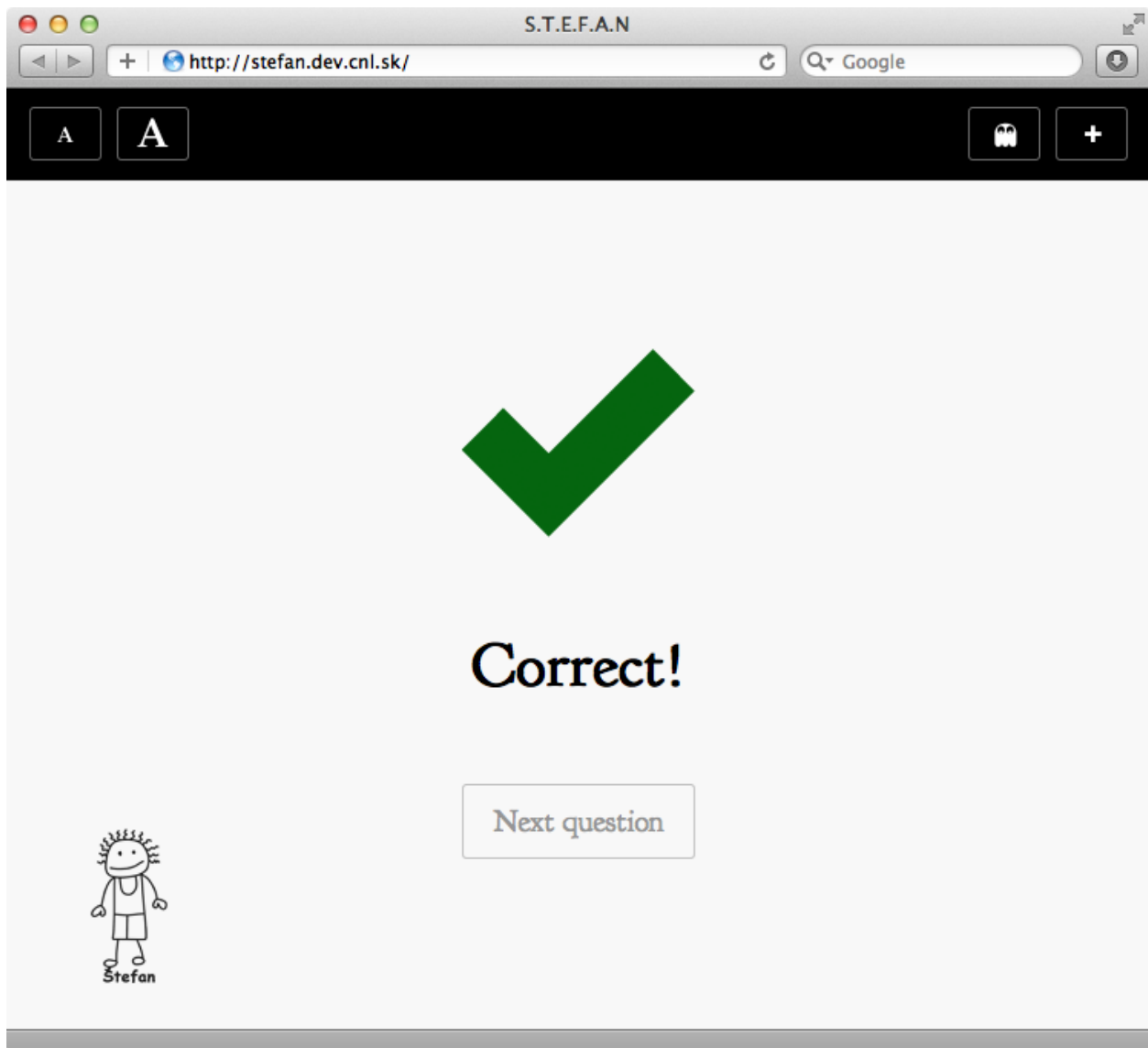


Samantha




Stefan

Just kidding	Samantha
girlfriend	not




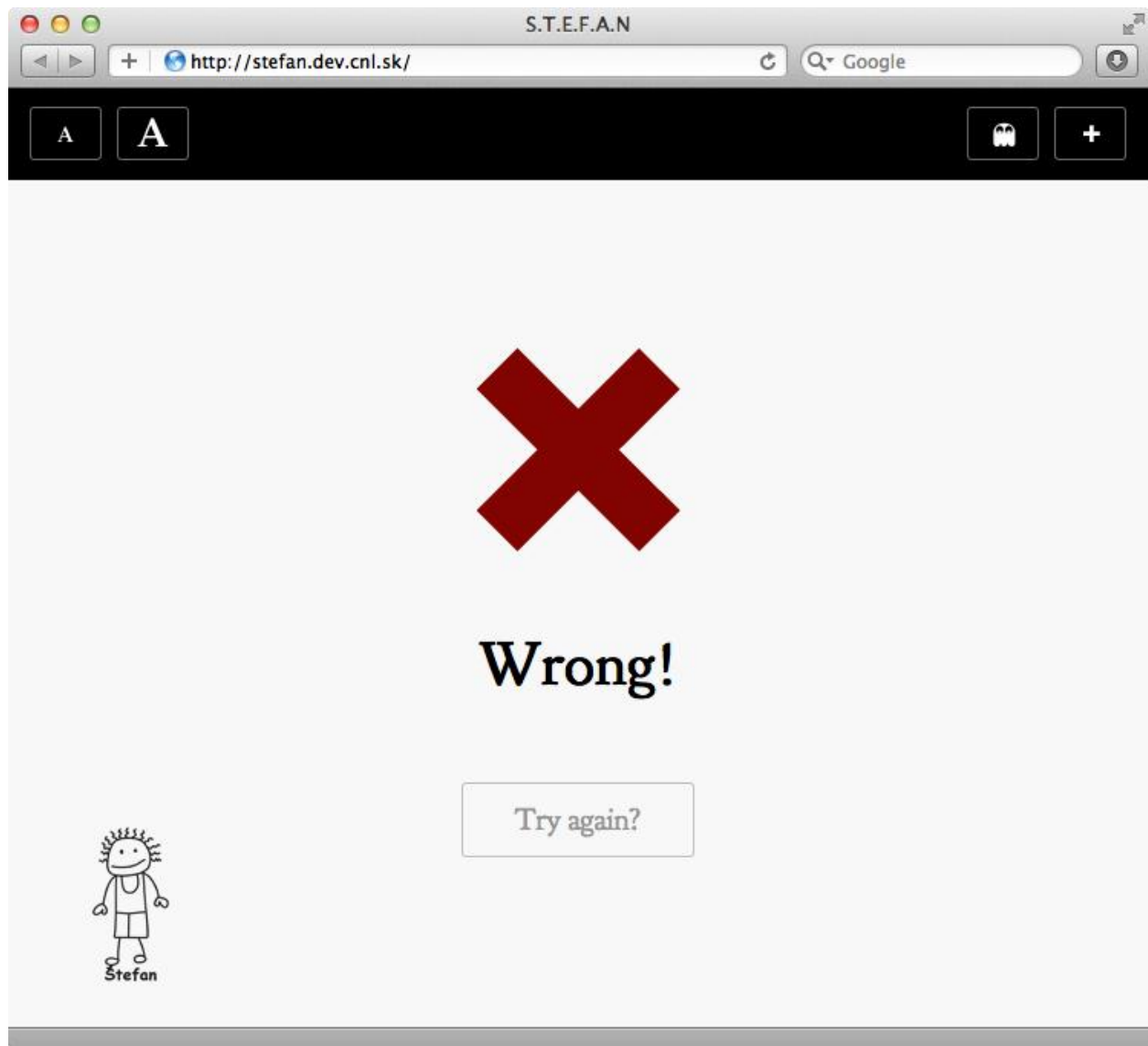
What's on this picture?

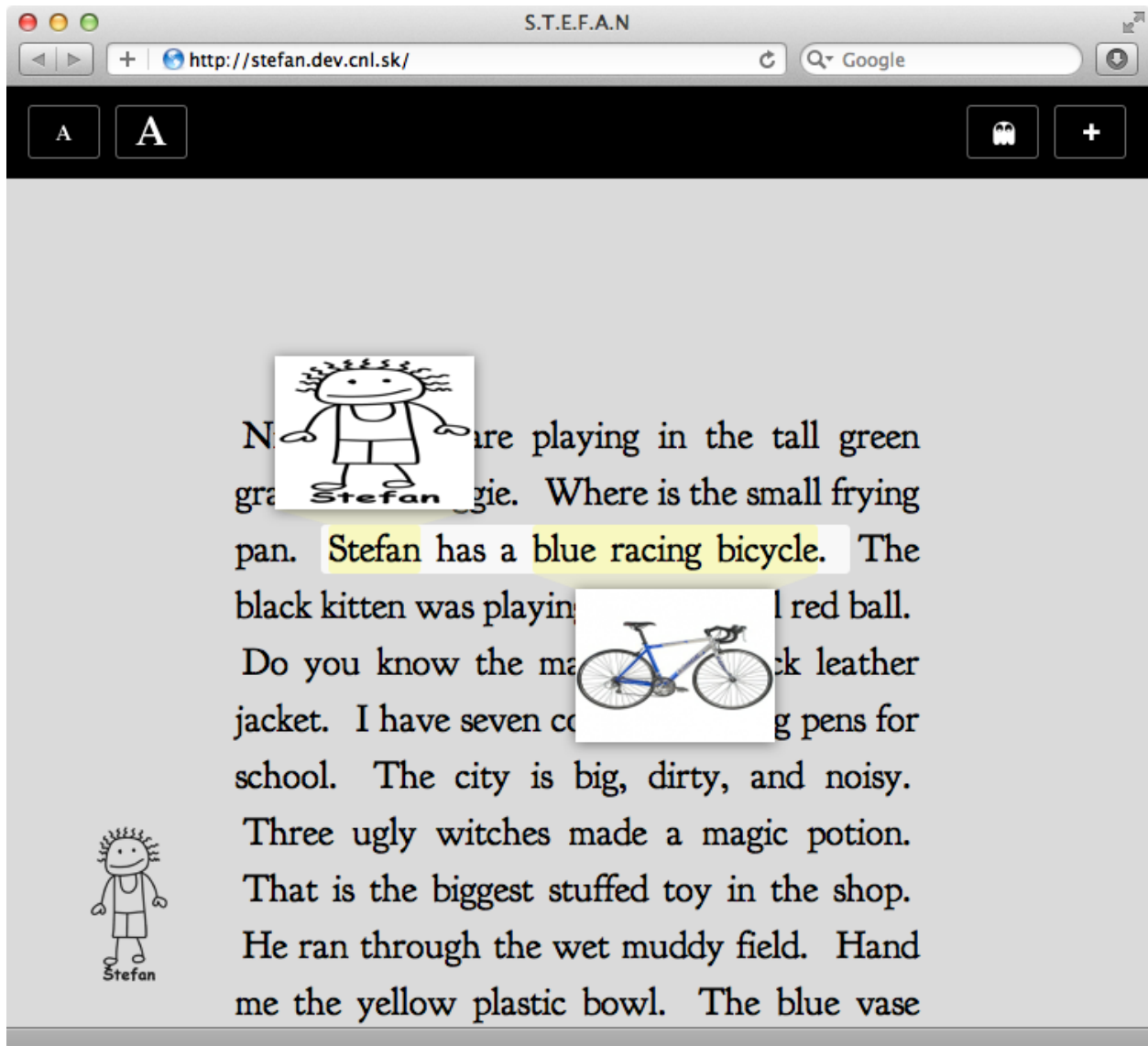


girlfriend not

Samantha Just kidding







The screenshot shows a web browser window with the title "S.T.E.F.A.N" and the URL "http://stefan.dev.cnl.sk/". The browser's address bar and search bar are visible. Below the browser window, there is a dark navigation bar with two buttons labeled "A" and a button with a plus sign. The main content area has a light gray background and displays a text-based game. The text is as follows:

N are playing in the tall green
gra Stefan gie. Where is the small frying
pan. Stefan has a blue racing bicycle. The
black kitten was playing l red ball.
Do you know the ma ck leather
jacket. I have seven co g pens for
school. The city is big, dirty, and noisy.
Three ugly witches made a magic potion.
That is the biggest stuffed toy in the shop.
He ran through the wet muddy field. Hand
me the yellow plastic bowl. The blue vase

There are two small illustrations of a stick figure character named Stefan. One is positioned above the text "Stefan" in the first line, and the other is positioned to the left of the text "Stefan" in the line "Do you know the ma". A small illustration of a blue racing bicycle is positioned to the right of the text "Stefan has a blue racing bicycle".