Multimedia Laboratory 1

Report

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1. Presentation of the project

The purpose of this report is the final project in Multimedia laboratory course. The product is meant to be an introducing off-line application of one field of sports. This means that it does not depend on any network connection, but is only based on processing power of PC. My application is dedicated to Ballroom dancing and all that is related to it. The reason behind my choice is the problem that Ballroom dancing was originally designed for partner dancing in ballrooms and nowadays half of the people do not understand that this meaning was only during the old times. At the moment Ballroom Dancing is highly competitive dance sport and it is even considered to put it into Olympic Games.

When it comes to the work itself, then the main point is to give an opportunity to a person, who is not familiar with Ballroom Dancing, to have basic knowledge about that subject. In other hand, it can be used by parents, who cannot decide due to the lack of knowledge, which training group their young child should go.

2. Analysis and planning

In terms of planning it was not hard to come up with an idea, because half of my life I have been doing Ballroom Dancing and I know almost every aspect of it. The project plan came out of the fact that while I spoke about my dancing with people, who did not have any wisdom about it, I got awful responds, basically pointing out that Ballroom Dancing is effortless and everybody can do it on high level. Furthermore, they thought it is not a sport.

Planning

- At first I defined background and set my aims for the project investigation. Also I developed objectives to achieve the aims and identified key stages and milestones of the project investigation.
- At second I planned how to achieve the project objectives: the estimated time that I would require and prepared the timetable.
- At third I carried out activities and captured data.
- At fourth I tested my product and gained appropriate feedback.
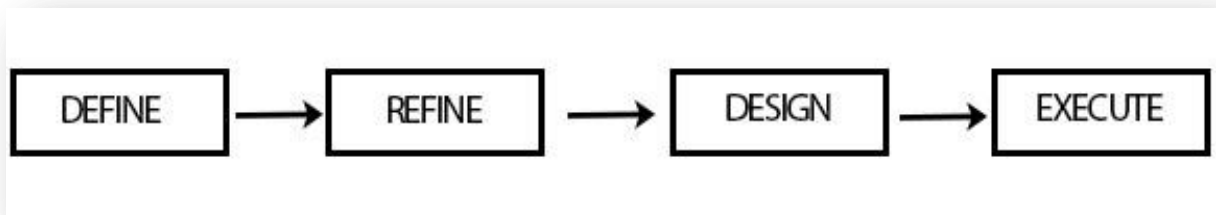
2.1 Planning scheme(figure)

In connection with thematic research, World Wide Web is full of different webpages that have a lot of information to offer. It is easy to look for materials if you know what you are looking and places to look for. For making analysis for my project I used SWOT method. SWOT is commonly used as part of strategic planning and looks at:

- Internal strengths, Internal weaknesses
- Opportunities in the external environment
- Threats in the external environment

Strengths
*Accurate and consistent flow of information

*Efficiency in design, construction and operations

*Customer focused

*Free of charge

*User friendly

*Trustworthy source of information

Weaknesses
*Off-line

*Limited presence in some countries

*Abcence of important skills

Opportunities
*Show off the skills that I have learned in this course

*Plan ahead

*Make it online based

*Connect it with other sport applications

*Enter a new market

Threats
*A better application can be delivered

*Requires more time for implementation

*Technology

2.2 SWOT analysis(figure)

3. Functional design

3.1 Functional requirements

Application Ballroom Dancing is a way of introducing this sport to wider audience. That is the main reason why it is made easy to use and it is user friendly. Whit only clicking on buttons or pictures it is possible to navigate between different slides. Music buttons are made visible and simply understandable. In this application we can use common saying, the most relevant information must be available in three or four clicks.

## 3.2 Structure arborescent
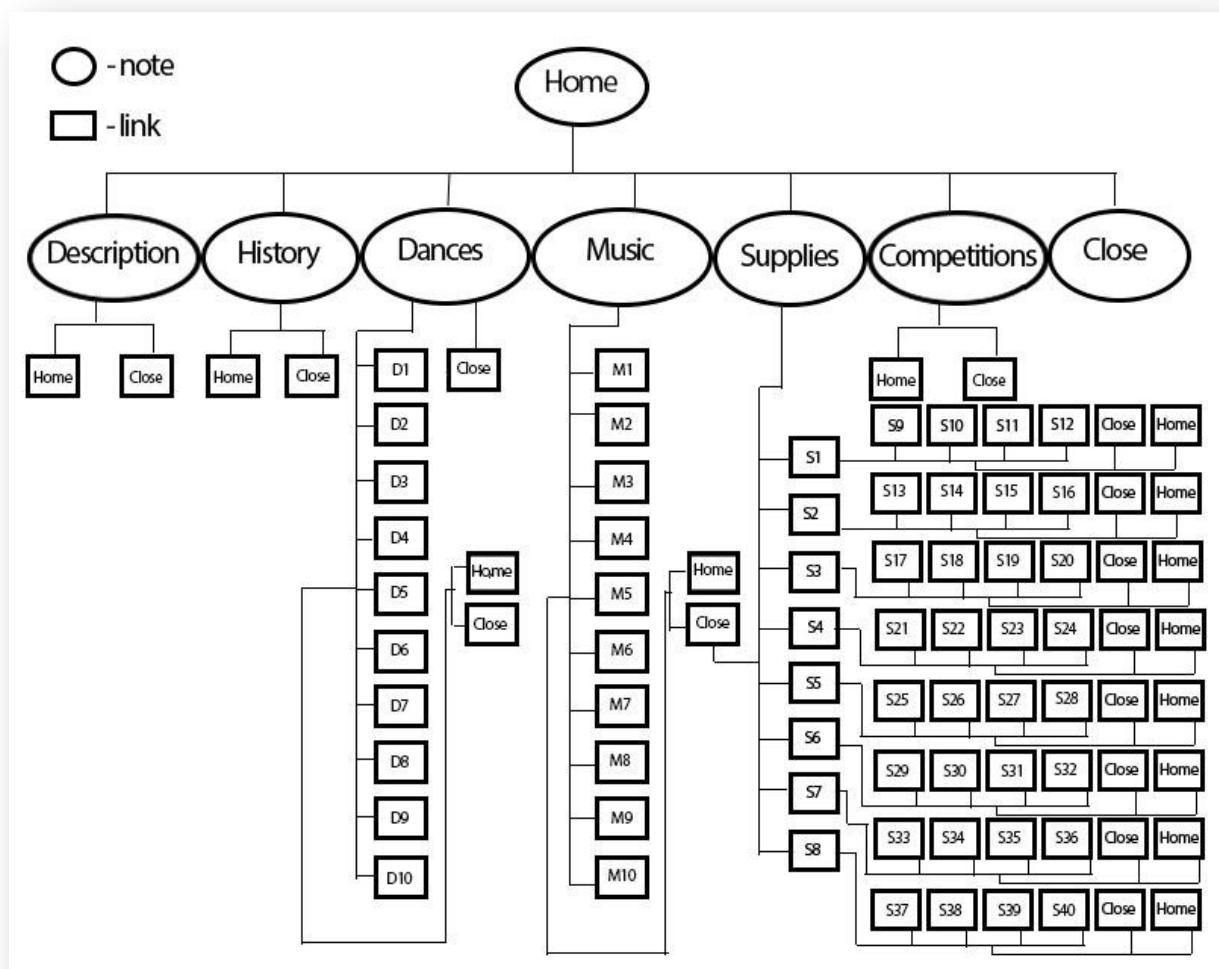
3.2.1 Structure arborescent(figure)

When it comes to describing my structure arborescent, then it is hierarchical linear. We can see that the user navigates in depth between levels of structure and does not navigate between items of the same level of structure. Furthermore, we can see branched and hierarchical organization of information. Arborescent includes nodes, which are the key point of the tree structure or ensures connections or have offspring (other nodes or links) and links, which has no offspring. In the application everything starts with "home". On the second level we can see six new categories and closing option. Under category "description", "home" and "competitions" it is only possible to choose "close" or "home" buttons. Under category "dances" and "Music" we can choose between more ten new categories or "close" or go "home". These two last options are possible to choose also after clicking one out of these ten possibilities. And last but not least, under category "supplies" we can choose between eight new categories and under these eight each one gives four more options plus returning "home" or closing.

3.3 Interaction Design and usability

In terms of routes and means of navigation, the application uses both user-based and time-based. A user-based - responses are established due to events caused by user and a time-based - answers are established due to related events timeline.

In connection with usability, nowadays customers cannot find what they are looking for on Web sites about 60 percent of the time, according to recent research. This leads to wasted time, increased frustration, and loss of visitors and trust. That is the main reason why I tried to make my application effective, efficeient and safe to use. Moreover, easy to learn and easy to remember how to use. I also tried to make it that way that the user should not be surprised with what happened after they completed an action. In that point minimalist design came to help, because it gives a possibility for more prominence to information and options and it is more likely to be used. I tried with technology to reduce task complexity and I did not want to waste space showing rarely needed information.
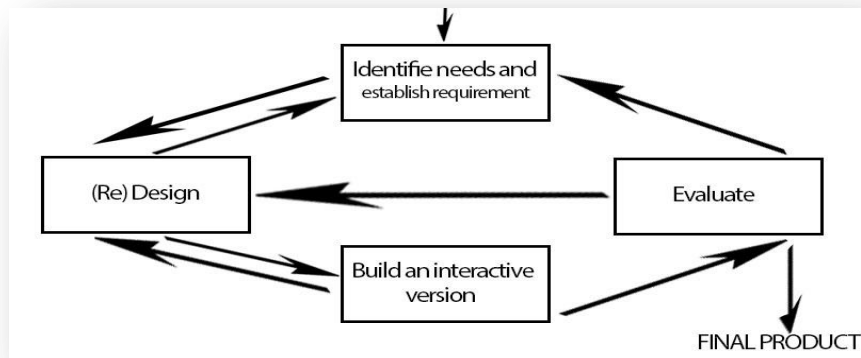
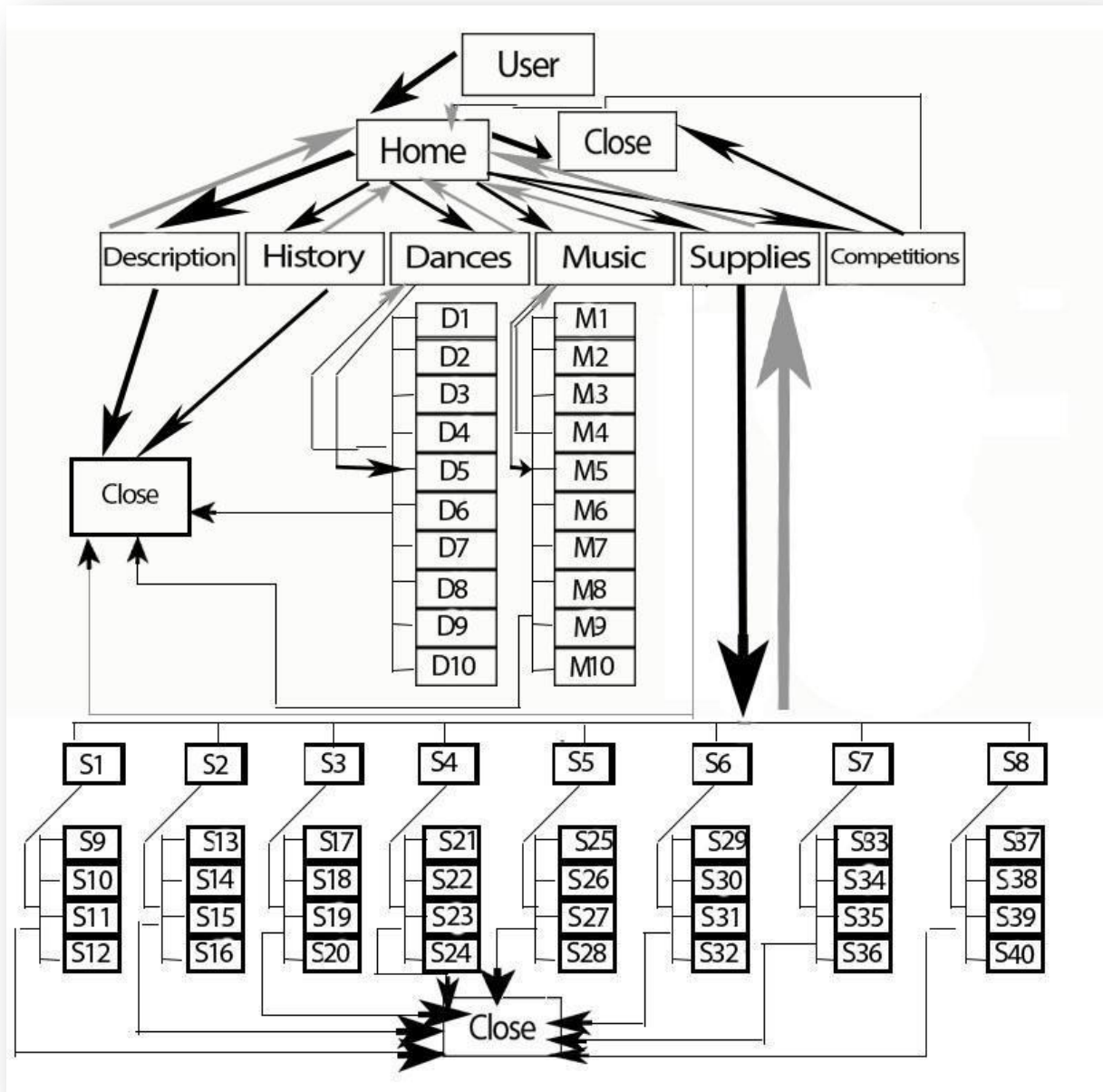**3.3.1 Interaction design(figure)**
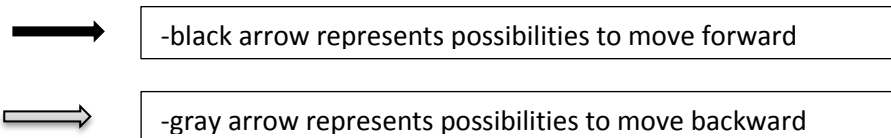
4. Technical Drawing
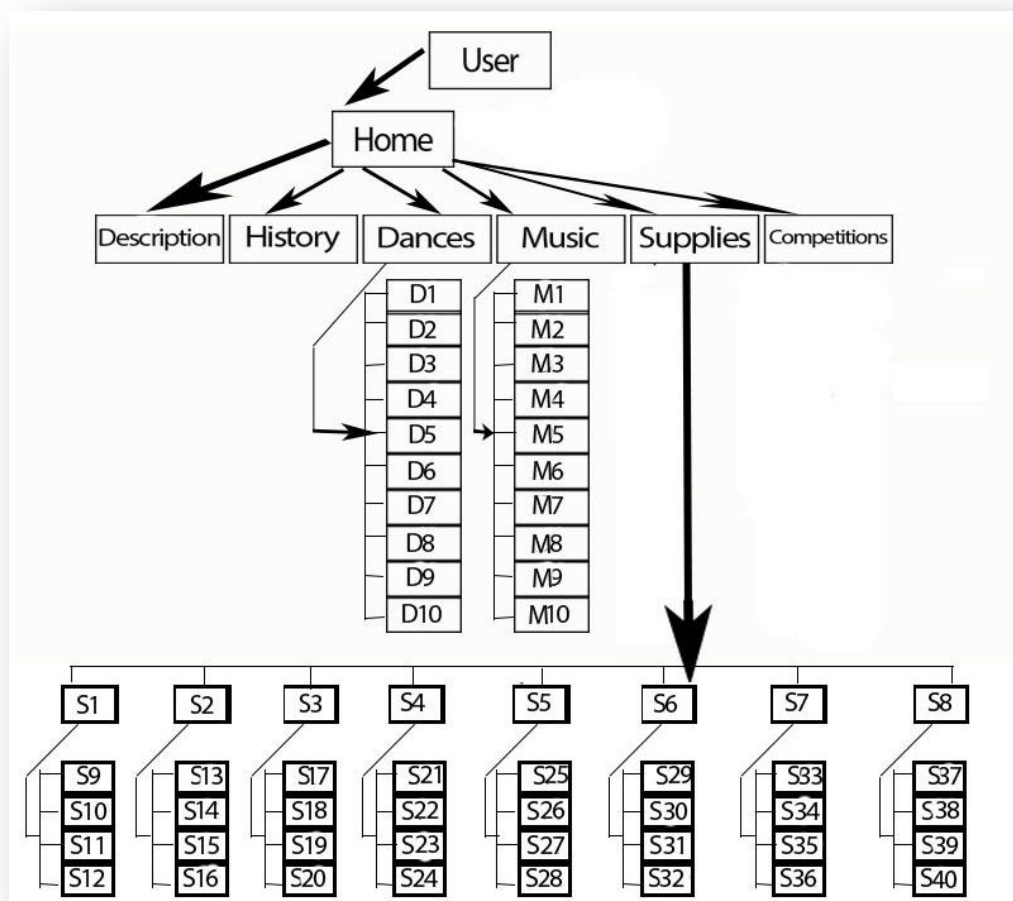
4.1 Technical drawing (figure)

5. Production project

5.1 Structure and navigation / interaction

5.1.1 Scene application navigation(figure)

➡ (black arrow)	-black arrow represents possibilities to move forward
⇨ (gray arrow)	-gray arrow represents possibilities to move backward

5.2 Integration and sound control

When it comes to sound, then I added background music to all of my scenes. At first I thought to add a possibility to take the music down, but then I realized if there is no music then the person who is enjoying the application cannot get the real feeling about Ballroom Dancing.

In order to avoid conflict with background music I had to add a code to my "back" button. Without this code my sound started looping. Only "dances"and "music"sub-categories did not need that code, because in these scenes I changed background music with video or another music file.

"Home" scene sound code

var background_sound :Sound=new Sound();

var wals_sound : Sound=new Sound();

var tango_sound : Sound=new Sound();

var foxtrot_sound : Sound=new Sound();

var vwals_sound : Sound=new Sound();

var quiq_sound : Sound=new Sound();

var samba_sound : Sound=new Sound();

var chacha_sound : Sound=new Sound();

var rumba_sound : Sound=new Sound();

var paso_sound : Sound=new Sound();

var jive_sound : Sound=new Sound();

background_sound.attachSound("Beautiful Things.wav");

wals_sound.attachSound("Slow Waltz.wav");

tango_sound.attachSound("Tango.wav");

foxtrot_sound.attachSound("Fox.wav");

vwals_sound.attachSound("vwals2.wav");

quiq_sound.attachSound("Quiq.wav");

```
samba_sound.attachSound("Samba.wav");

chacha_sound.attachSound("Cha-Cha.wav");

rumba_sound.attachSound("Rumba.wav");

paso_sound.attachSound("Paso.wav");

jive_sound.attachSound("Jive.wav");


background_sound.start();

background_sound.onSoundComplete = function () {

background_sound.start ();

}
```

Back button code

```
on (release) {

        gotoAndPlay("home", 1);

        background_sound.stop();

}
```

Button code in "dance" scene

```
on (release) {

        gotoAndStop("d1", 1);

        background_sound.stop();

}
```

Back button code in "dance" sub-scene

```
on (release) {

        gotoAndStop("dances", 1);

        background_sound.start();

}
```

Back button code in "music" sub-scene

```
on (release) {

        gotoAndStop("music", 1);

        wals_sound.stop();

        background_sound.start ();

}

on (release) {

        gotoAndStop("music", 1);

        tango_sound.stop();

        background_sound.start ();

}

on (release) {

        gotoAndStop("music", 1);

        vwals_sound.stop();

        background_sound.start ();

}

on (release) {

        gotoAndStop("music", 1);

        foxtrot_sound.stop();

        background_sound.start ();

}

on (release) {

        gotoAndStop("music", 1);

        quiq_sound.stop();

        background_sound.start();

}

on (release) {
```

```
        gotoAndStop("music", 1);

        samba_sound.stop();

        background_sound.start ();

}

on (release) {

        gotoAndStop("music", 1);

        chacha_sound.stop();

        background_sound.start ();

}

on (release) {

        gotoAndStop("music", 1);

        rumba_sound.stop();

        background_sound.start ();

}

on (release) {

        gotoAndStop("music", 1);

        paso_sound.stop();

        background_sound.start();

}

on (release) {

        gotoAndStop("music", 1);

        jive_sound.stop();

        background_sound.start ();

}
```

5.3 Animation

In terms on making my animation possible I had to use some simple coding, which mostly was sound related. Although I used it in "Supplies" scene also, but all the codes were connected to buttons. The "Supplies" scene sub-category I made into a movie clip that would change pictures with clicking on picture buttons. Furthermore, in the movie clip there is another one with fading in text. I used fading in text also in "description", "history" and "competitions" categories in which the time limit was 20 seconds. When it comes to the „home" scene, I used 50 seconds of easing in with the title and same amount of time for the menu to fade in although I used different seconds to make them appear on the stage separately. In every scene there was also one close button.

"Supplies" scene code

```
on (release) {
        gotoAndStop("s1", "s1");
}
on (release) {
        gotoAndStop("s2", "s2");
}
on (release) {
        gotoAndStop("s3", "s3");
}
on (release) {
        gotoAndStop("s4", "s4");
}
on (release) {
        gotoAndStop("s5", "s5");
}
on (release) {
        gotoAndStop("s6", "s6");
}
on (release) {
        gotoAndStop("s7", "s7");
```

```
}

on (release) {

        gotoAndStop("s8", "s8");

}
```

"Supplies" sub-category's code

```
on (release) {

        _root.clip.gotoAndStop(2);

}

on (release) {

        _root.clip.gotoAndStop(3);

}

on (release) {

        _root.clip.gotoAndStop(4);

}
```

"Close" botton code

```
on (release) {

        fscommand("quit");

}
```

5.4 Technical solutions adopted to solve problems

The biggest problem that I was having was with navigating between the "home" slide and "supplies" slide. Even though I used the same code between every slide it still gave me an error with "supplies" slide. When I was clicking on main menu "supplies" then „competitions" popped up. I tried to see maybe there is a problem with typing names to movie clips or scene names, but I did not manage to see any mistake there. Then I decided to add labels in "supplies" slide and everything started working fine again.

6. Conclusions

6.1 Critical reflection

When it comes to critical reflection, then I believe this application could have had more effects. It was not possible to implement them due to a lack of knowledge, but I think it is not a problem and it is possible to improve the project later on. My goal was not to impress with the new skills, but I was pressing on the user and on the usability of my application.

6.2 Suggestions for improvement

In terms of improvement there are definitely many ways. My suggestion would be to implement that application online. Moreover, every dance style could have similar application and if everything is together on one website it is easy to navigate and have new knowledge about every dance style whit minimum time.

7. Web References and Bibliography

- *http://www.csl.mtu.edu*
- *https://www.google.ee/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&ved=0CC8QFjAA&url=http%3A%2F%2Fhomepage.cs.uiowa.edu%2F~hourcade%2Fclasses%2Ffa06hci%2Flecture2.ppt&ei=s3EKUc7KDsTPhAf3uICQAg&usg=AFQjCNFvQk_GrFm51khPywZlRME4lq7qnw&sig2=8IzGhkkcqVYt0NyKbFHZpw&bvm=bv.41642243,d.ZG4*
- *http://moodle.ua.pt/course/view.php?id=1585*

8. Attachments

8.1 CD with .FLA project file