UNIVERSITY OF TRENTO

DISI

M.Sc in Computer Science

Introduction to Service Design and Engineering

Final project API documentation

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Virtual LifeCoach Services API documentation

29 of the Services that are implemented in the project are described in the table below:-

NO	Attribute	Content
1	**Service link**	http://localhost:5900/projectsdeone/person/1/GeneralCurrentStatus
	Method	GET

	Description	This API gives the general current information about person with id number 1. The information that it provide are
		1. Information from daily report service
		  ✓ Here it compare the goal activity with daily activity and generate status whether the person achieve his todays goal or not.
		  ✓ It provide today reminder for the specific person
		  ✓ It also provide motivational phrases to inspire the person in his daily activity
		2. Information from bmiStutes service
		  ✓ It calculates the bmi and compares the value with healthy measure service.
		  ✓ it uses External SOAP service to change his weight and height in pounds and feet respectively .
		  ✓ Finaly it give recommendation based on bmi and healthy measure services
		3. Information from healthprofile service
		  ✓ It compare his current health profile with his health profile goal and give a report on his achievement
		4. Information form reminder Service
		  ✓ It provide things that need to be remind for today

	Output	```xml <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <generalCurrentStatus> <dailRreport> <dailyGoalActivityReport> <activitystatus>failed to try</activitystatus> <activitytype>run</activitytype> <activityvalue>0.0</activityvalue> <plandactivityvalue>30.0</plandactivityvalue> </dailyGoalActivityReport> <dailyGoalActivityReport> <activitystatus>Goal achived and outperformed</activitystatus> <activitytype>walk</activitytype> <activityvalue>40.0</activityvalue> <plandactivityvalue>30.0</plandactivityvalue> </dailyGoalActivityReport> <dailyGoalActivityReport> <activitystatus>Goal achived and outperformed</activitystatus> <activitytype>walk</activitytype> <activityvalue>40.0</activityvalue> <plandactivityvalue>30.0</plandactivityvalue> </dailyGoalActivityReport> <motivationalphrase>"Age is no barrier. It's a limitation you put on your```

3			mind." – Jackie Joyner-Kersee</motivationalphrase>
			    <reminder>
			      <date>2015-06-19T00:00:00+02:00</date>
			      <id>
			        <numberofremdperday>19</numberofremdperday>
			        <pid>1</pid>
			      </id>
			      <toberemind>go to doctor</toberemind>
			    </reminder>
			  </dailRreport>
			  <healthprofileGoalstatuschecker>
			    <hgoaldate>2015-07-19T00:00:00+02:00</hgoaldate>
			    <hgvalue>75.0</hgvalue>
			    <hprofiledate>2015-03-04T00:00:00+01:00</hprofiledate>
			    <hpvalue>80.0</hpvalue>
			    <mmeasure>weight</mmeasure>
			    <status>You are above your gooal by 5.0</status>
			  </healthprofileGoalstatuschecker>
			  <healthymeasureStatus>
			    <measuretype>Bmi</measuretype>
			    <recomendation>Your Bmi is 27.358845, You weight 176.37 pounds, Your height in feet is 5.61. To have Normal Bmi, Decrease weight by managing your diet and making exercise</recomendation>
			    <status>above normal</status>
			  </healthymeasureStatus>
			</generalCurrentStatus>

2	**Service link**		http://localhost:5900/projectsdeone/person/1/DailyReport
	Method		GET
	Description		This API gives the Daily activity report of a person with id number 1. The information that it provide are 1. It provide daily Report ✓ Here it compare the goal activity with daily activity and generate status whether the person achieve his todays goal or not. 2. It provide motivational phrases to inspire the person in his daily activity 3. It provide today reminder for the specific person

	Output		<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
			<dailyReport>
			  <dailyGoalActivityReport>
			    <activitystatus>failed to try</activitystatus>
			    <activitytype>run</activitytype>
			    <activityvalue>0.0</activityvalue>
			    <plandactivityvalue>30.0</plandactivityvalue>
			  </dailyGoalActivityReport>
			  <dailyGoalActivityReport>
			    <activitystatus>Goal achived and outperformed</activitystatus>

		```<activitytype>walk</activitytype>```
		```<activityvalue>40.0</activityvalue>```
		```<plandactivityvalue>30.0</plandactivityvalue>```
		```</dailyGoalActivityReport>```
		```<dailyGoalActivityReport>```
		```<activitystatus>Goal achived and outperformed</activitystatus>```
		```<activitytype>walk</activitytype>```
		```<activityvalue>40.0</activityvalue>```
		```<plandactivityvalue>30.0</plandactivityvalue>```
		```</dailyGoalActivityReport>```
		```<motivationalphrase>```"Age is no barrier. It's a limitation you put on your mind."
		– Jackie Joyner-Kersee```</motivationalphrase>```
		```<reminder>```
		```<date>2015-06-19T00:00:00+02:00</date>```
		```<id>```
		```<numberofremdperday>19</numberofremdperday>```
		```<pid>1</pid>```
		```</id>```
		```<toberemind>go to doctor</toberemind>```
		```</reminder>```
		```</dailyReport>```

3	**Service link**	http://localhost:5900/projectsdeone/person/1/bmistatus
	Method	GET
	Description	This API gives the BMI status of a person with id number 1. The information that it provide is 1. It give recommendation based on bmi and healthy measure Information from bmi service and healthymeasurestatus service 2. It uses External SOAP service to change his weight and height in pounds and feet respectively .

	Output	```<?xml version="1.0" encoding="UTF-8" standalone="yes"?>```
		```<healthymeasureStatus>```
		```<measuretype>Bmi</measuretype>```
		```<recomendation>```Your Bmi is 27.358845, You weight 176.37 pounds, Your height in feet is 5.61. To have Normal Bmi, Decrease weight by managing your diet and making exercise```</recomendation>```
		```<status>above normal</status>```
		```</healthymeasureStatus>```

4	**Service link**	http://localhost:5900/projectsdeone/person/1/bmi/
	Method	GET
	Description	This service will calculate the bmi of the person with id number 1 It call healthprofile service for both weight and height of the the peson and it calculate the bmi of the person

	Output	```<?xml version="1.0" encoding="UTF-8" standalone="yes"?>```
		```<bodymassindex>```
		```<bmi>27.358845</bmi>```

		</bodymassindex>
5	**Service link**	http://localhost:5900/projectsdeone/person/1/Activitygoal
	Method	GET
	Description	This service will retrieve the activity goal of a person with id number 1
	Output	<?xml version="1.0" encoding="UTF-8" standalone="yes"?> <activitygoals> <activitygoal> <agenddate>2015-03-24T00:00:00+01:00</agenddate> <agperday>1</agperday> <agvalue>70.0</agvalue> <id agmeasurement="walk" agstartdate="2015-03-24T00:00:00+01:00" pid="1"/> </activitygoal> <activitygoal> <agenddate>2015-04-03T00:00:00+02:00</agenddate> <agperday>1</agperday> <agvalue>30.0</agvalue> <id agmeasurement="walk" agstartdate="2015-04-01T00:00:00+02:00" pid="1"/> </activitygoal> <activitygoal> <agenddate>2015-07-03T00:00:00+02:00</agenddate> <agperday>1</agperday> <agvalue>30.0</agvalue> <id agmeasurement="walk" agstartdate="2015-05-01T00:00:00+02:00" pid="1"/> </activitygoal> </activitygoals>
6	**Service link**	http://localhost:5900/projectsdeone/person/1/Activitygoal/Today
	Method	GET
	Description	This service will retrieve the activity goal that the person with id number 1 set for today.
	Output	<?xml version="1.0" encoding="UTF-8" standalone="yes"?> <activitygoals> <activitygoal> <agenddate>2015-07-03T00:00:00+02:00</agenddate> <agperday>1</agperday> <agvalue>30.0</agvalue> <id agmeasurement="run" agstartdate="2015-06-01T00:00:00+02:00" pid="1"/> </activitygoal> <activitygoal> <agenddate>2015-07-03T00:00:00+02:00</agenddate> <agperday>1</agperday> <agvalue>30.0</agvalue> <id agmeasurement="walk" agstartdate="2015-05-01T00:00:00+02:00" pid="1"/>

		`</activitygoal>` `</activitygoals>`
7	**Service link**	http://localhost:5900/projectsdeone/person/1/Activity
	Method	GET
	Description	This service will retrieve all the activity that person with id number 1 perform

	Output	`<?xml version="1.0" encoding="UTF-8" standalone="yes"?>`
		`<personalactivities>`
		`  <personalactivity>`
		`    <id>`
		`      <padate>2015-03-03T00:00:00+01:00</padate>`
		`      <pameasurement>walk</pameasurement>`
		`      <pid>1</pid>`
		`    </id>`
		`    <pavalue>40</pavalue>`
		`  </personalactivity>`
		`  <personalactivity>`
		`    <id>`
		`      <padate>2015-04-03T00:00:00+02:00</padate>`
		`      <pameasurement>walk</pameasurement>`
		`      <pid>1</pid>`
		`    </id>`
		`    <pavalue>30</pavalue>`
		`  </personalactivity>`
		`  <personalactivity>`
		`    <id>`
		`      <padate>2015-06-17T00:00:00+02:00</padate>`
		`      <pameasurement>walk</pameasurement>`
		`      <pid>1</pid>`
		`    </id>`
		`    <pavalue>40</pavalue>`
		`  </personalactivity>`
		`</personalactivities>`

8	**Service link**	http://localhost:5900/projectsdeone/person/1/Activity/Today
	Method	GET
	Description	This service will retrieve all todays' activities that person with id number 1 perform

	Output	`<?xml version="1.0" encoding="UTF-8" standalone="yes"?>`
		`<personalactivities>`
		`  <personalactivity>`
		`    <id>`
		`      <padate>2015-06-19T00:00:00+02:00</padate>`
		`      <pameasurement>walk</pameasurement>`
		`      <pid>1</pid>`
		`    </id>`
		`    <pavalue>40</pavalue>`
		`  </personalactivity>`
		`</personalactivities>`

9	Service link	http://localhost:5900/projectsdeone/person/1/PAGstatus
	Method	GET
	Description	This service provide information whether the person achieve his activity goal or not for each date that the person set.

	Output	```xml
		<personalActivityGoalStatusChecks>
		  <personalActivityGoalStatusCheck>
		    <activity>run</activity>
		    <activityEndDate>2015-07-03T00:00:00+02:00</activityEndDate>
		    <activityStartDate>2015-06-01T00:00:00+02:00</activityStartDate>
		    <dailyactivities>
		      <activitydate>2015-06-01T00:00:00+02:00</activitydate>
		      <activitystatus>faild</activitystatus>
		      <activitytype>run</activitytype>
		      <activityvalue>0.0</activityvalue>
		      <sid>1_0run</sid>
		    </dailyactivities>
		    <dailyactivities>
		      <activitydate>2015-06-02T00:00:00+02:00</activitydate>
		      <activitystatus>faild</activitystatus>
		      <activitytype>run</activitytype>
		      <activityvalue>0.0</activityvalue>
		      <sid>1_0run</sid>
		    </dailyactivities>
		    <dailyactivities>
		      <activitydate>2015-06-03T00:00:00+02:00</activitydate>
		      <activitystatus>faild</activitystatus>
		      <activitytype>run</activitytype>
		      <activityvalue>0.0</activityvalue>
		      <sid>1_0run</sid>
		    </dailyactivities>
		  </personalActivityGoalStatusCheck>
		</personalActivityGoalStatusChecks>
		``

10	Service link	http://localhost:5900/projectsdeone/person/1/Healthprofile
	Method	GET
	Description	This service will provide current health profile of the person with id number 1

	Output	```xml
		<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
		<healthprofiles>
		  <healthprofile>
		    <id>
		      <pid>1</pid>
		      <pmeasurement>height</pmeasurement>
		    </id>
		    <pdate>2015-01-04T00:00:00+01:00</pdate>
		    <pvalue>1.71</pvalue>
		  </healthprofile>
		  <healthprofile>
		    <id>
		      <pid>1</pid>
		``

		`<pmeasurement>weight</pmeasurement>`
		`</id>`
		`<pdate>2015-03-04T00:00:00+01:00</pdate>`
		`<pvalue>80.0</pvalue>`
		`</healthprofile>`
		`</healthprofiles>`

11	Service link	http://localhost:5900/projectsdeone/person/1/Healthprofile/height (weight)
	Method	GET
	Description	This service provide the current height (weight) of the person with id number 1
	Output	

12	Service link	http://localhost:5900/projectsdeone/person/1/Healthprofilegoal
	Method	GET
	Description	This service provide the health profile goal that the person with id number 1 set

	Output	`<?xml version="1.0" encoding="UTF-8" standalone="yes"?>`
		`<healthprofilegoals>`
		`  <healthprofilegoal>`
		`    <goalvalue>75.0</goalvalue>`
		`    <id>`
		`      <gmeasurement>weight</gmeasurement>`
		`      <goaldate>2015-07-19T00:00:00+02:00</goaldate>`
		`      <pid>1</pid>`
		`    </id>`
		`  </healthprofilegoal>`
		`</healthprofilegoals>`

13	Service link	http://localhost:5900/projectsdeone/person/1/Healthprofilegoal/weight
	Method	GET
	Description	This service provide the goal that the person with id number 1 set for his weight
	Output	

14	Service link	http://localhost:5900/projectsdeone/person/1/Hpgoalstatus
	Method	GET
	Description	This service provide the health profile status by calculating the health profile goal and current health profile

	Output	`<?xml version="1.0" encoding="UTF-8" standalone="yes"?>`
		`<healthprofileGoalstatuscheckers>`
		`  <healthprofileGoalstatuschecker>`
		`    <hgoaldate>2015-07-19T00:00:00+02:00</hgoaldate>`
		`    <hgvalue>75.0</hgvalue>`
		`    <hprofiledate>2015-03-04T00:00:00+01:00</hprofiledate>`
		`    <hpvalue>80.0</hpvalue>`
		`    <mmeasure>weight</mmeasure>`
		`    <status>You are above your gooal by 5.0</status>`
		`  </healthprofileGoalstatuschecker>`
		`</healthprofileGoalstatuscheckers>`

15	Service link	http://localhost:5900/projectsdeone/person/1/Reminder/
	Method	GET
	Description	This service provide all things(past and present) that need be remind for person with id number 1
	Output	```xml <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <reminders> <reminder> <date>2015-06-01T00:00:00+02:00</date> <id> <numberofremdperday>1</numberofremdperday> <pid>1</pid> </id> <toberemind>go to doctor</toberemind> </reminder> <reminder> <date>2015-06-23T00:00:00+02:00</date> <id> <numberofremdperday>2</numberofremdperday> <pid>1</pid> </id> <toberemind>go to museum</toberemind> </reminder> </reminders>```

16	Service link	http://localhost:5900/projectsdeone/person/1/Reminder/Tobe
	Method	GET
	Description	This service provide things to be remind for today and future for person with id number 1

17	Service link	http://localhost:5900/projectsdeone/person/1/Reminder/Today
	Method	GET
	Description	This service provide things to be remind for today only

18	Service link	http://localhost:5900/projectsdeone/Motivationalphras
	Method	GET
	Description	List all possible motivational phrases from the database
	Output	```xml <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <motivationalphrass> <motivationalphras> <mid>1</mid> <motivationph>"Age is no barrier. It's a limitation you put on your mind." – Jackie Joyner-Kersee</motivationph> </motivationalphras>```

19	Service link	http://localhost:5900/projectsdeone/HealthyMeasurement

	Method	GET
	Description	This service provide all the healthy measurement found in the database

	Output	`<?xml version="1.0" encoding="UTF-8" standalone="yes"?>`
		`<healthymeasures>`
		  `<healthymeasure>`
		    `<nmaxvalue>25.0</nmaxvalue>`
		    `<nmeasurement>bmi</nmeasurement>`
		    `<nminvalue>18.5</nminvalue>`
		  `</healthymeasure>`
		  `<healthymeasure>`
		    `<nmaxvalue>80.0</nmaxvalue>`
		    `<nmeasurement>dpb</nmeasurement>`
		    `<nminvalue>80.0</nminvalue>`
		  `</healthymeasure>`

20	Service link	http://localhost:5900/projectsdeone/person/
	Method	POST
	Description	This service will add new user to the database

	Input structure	`<personprofile>`
		  `<dofb>2005-03-10T00:00:00+01:00</dofb>`
		  `<fname>Alex</fname>`
		  `<lname>Henok</lname>`
		  `<pid>12</pid>`
		  `<sex>M</sex>`
		`</personprofile>`

	Output	`<?xml version="1.0" encoding="UTF-8" standalone="yes"?>`
		`<personprofile>`
		  `<dofb>2005-03-10T00:00:00+01:00</dofb>`
		  `<fname>Alex</fname>`
		  `<lname>Henok</lname>`
		  `<pid>12</pid>`
		  `<sex>M</sex>`
		`</personprofile>`

21	Service link	http://localhost:5900/projectsdeone/person/12/Healthprofile
	Method	POST
	Description	This service will add new healthprofile to the person with id number 12

	input	`<healthprofile>`
		  `<id>`
		    `<pid>12</pid>`
		    `<pmeasurement>weight</pmeasurement>`
		  `</id>`
		  `<pdate>2015-01-04T00:00:00+01:00</pdate>`
		  `<pvalue>70</pvalue>`
		`</healthprofile>`

	Output	`<?xml version="1.0" encoding="UTF-8" standalone="yes"?>` `<healthprofile>`

		`<id>`
		    `<pid>12</pid>`
		    `<pmeasurement>weight</pmeasurement>`
		`</id>`
		`<pdate>2015-01-04T00:00:00+01:00</pdate>`
		`<pvalue>70.0</pvalue>`
		`</healthprofile>`

22	**Service link**	http://localhost:5900/projectsdeone/person/12/Activity
	Method	POST
	Description	This service will add new activity to the person with id number 12

	input	`<personalactivity>`
		    `<id>`
		        `<padate>2015-06-19T00:00:00+01:00</padate>`
		        `<pameasurement>walk</pameasurement>`
		        `<pid>12</pid>`
		    `</id>`
		    `<pavalue>40</pavalue>`
		`</personalactivity>`

	Output	`<?xml version="1.0" encoding="UTF-8" standalone="yes"?>`
		`<personalactivity>`
		    `<id>`
		        `<padate>2015-06-19T01:00:00+02:00</padate>`
		        `<pameasurement>walk</pameasurement>`
		        `<pid>12</pid>`
		    `</id>`
		    `<pavalue>40</pavalue>`
		`</personalactivity>`

23	**Service link**	http://localhost:5900/projectsdeone/person/12/Activitygoal
	Method	POST
	Description	This service will add new activity goal to the person with id number 12
	Input structure	`<activitygoal>` `<agenddate>2015-07-03T00:00:00+02:00</agenddate>` `<agperday>12</agperday>` `<agvalue>30.0</agvalue>` `<id agmeasurement="run" agstartdate="2015-06-01T00:00:00+02:00"` pid="12"/>`     `</activitygoal>`
	Output	`<?xml version="1.0" encoding="UTF-8" standalone="yes"?>` `<activitygoal>` `<agenddate>2015-07-03T00:00:00+02:00</agenddate>` `<agperday>12</agperday>` `<agvalue>30.0</agvalue>` `<id agmeasurement="run" agstartdate="2015-06-01T00:00:00+02:00"` pid="12"/>` `</activitygoal>`
24	**Service link**	http://localhost:5900/projectsdeone/person/12/Healthprofilegoal

	Method	POST
	Description	This service will add new healthprofile goal to the person with id number 12
	Input structure	```<healthprofilegoal>
<goalvalue>70</goalvalue>
<id>
<gmeasurement>weight</gmeasurement>
<goaldate>2015-07-19T00:00:00+02:00</goaldate>
<pid>12</pid>
</id>
</healthprofilegoal>```
	Output	```<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<healthprofilegoal>
<goalvalue>70.0</goalvalue>
<id>
<gmeasurement>weight</gmeasurement>
<goaldate>2015-07-19T00:00:00+02:00</goaldate>
<pid>12</pid>
</id>
</healthprofilegoal>```
25	**Service link**	http://localhost:5900/projectsdeone/person/12/Reminder/
	Method	POST
	Description	This service will add new reminder to the person with id number 12
	Input sturcture	```<reminder>
<date>2015-06-19T00:00:00+02:00</date>
<id>
<numberofremdperday>19</numberofremdperday>
<pid>12</pid>
</id>
<toberemind>go to doctor</toberemind>
</reminder>```
	Output	```<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<reminder>
<date>2015-06-19T00:00:00+02:00</date>
<id>
<numberofremdperday>19</numberofremdperday>
<pid>12</pid>
</id>
<toberemind>go to doctor</toberemind>
</reminder>```
26	**Service link**	http://localhost:5900/projectsdeone/person/12/
	Method	PUT
	Description	This service will update profile of the person with id number 12
	input	```<personprofile>
<dofb>2005-03-10T00:00:00+01:00</dofb>
<fname>Helen</fname>
<lname>Zeman</lname>```

		`<pid>12</pid>`
		    `<sex>F</sex>`
		`</personprofile>`

	output	`<?xml version="1.0" encoding="UTF-8" standalone="yes"?>`
		`<personprofile>`
		    `<dofb>2005-03-10T00:00:00+01:00</dofb>`
		    `<fname>Helen</fname>`
		    `<lname>Zeman</lname>`
		    `<pid>12</pid>`
		    `<sex>F</sex>`

27	**Service link**	http://localhost:5900/projectsdeone/person/1/Healthprofile
	Method	PUT
	Description	This service will update the healthprofile of the person with id number 1
28	**Service link**	http://localhost:5900/projectsdeone/person/12/
	Method	DELETE
	Description	This service will delete the person who has id number 12
29	**Service link**	http://localhost:5900/projectsdeone/person/1/Healthprofile/weight (height)
	Method	DELETE
	Description	This service will delete current health profile specifically the weigh(height)t one