

浙江师范大学

非师范专业实习手册

Internship Workbook for Undergraduate Students of Non-education Major in ZJNU



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浙江师范大学本科教学部、国际处制

Made by the Teaching Department of Undergraduate and the Department of International Exchange and
Collaboration of Zhejiang Normal University

二〇一八年

2018

说 明

NOTICE

1. 本手册专供国际本科生、全英文班使用。填表一律使用钢笔，要求字迹清楚，保持完好。
2. 学生实习结束后请实习单位在手册上填写评价并上交给所在学院。
3. 国际本科生请认真阅读并签署《浙江师范大学国际本科生实习安全承诺书》并上交至所在学院国际学生管理老师。
4. 国际本科生中的奖学金生到中国境外实习期间停发奖学金生活费，且不予补发。
5. 本手册于2018年开始使用。

1. This workbook is for the Foreign Undergraduate Students and the English Language Class students. Please fill the form clearly and neatly with black pen.

2. After finishing the internship work, please complete filling the comment part which should be done by the intern employer in this workbook. And then hand in the workbook to the college office.

3. Please read the *Security Commitment for Foreign Undergraduate Students of ZJNU during the Internship* carefully and sign on it, then hand it in to the relevant teacher who is in charge of it in the college.

4. Those students who have been supported by the scholarship will be suspended their scholarship and monthly allowance during the period of studying abroad (out of China) and oversea. And no retroactive pay will be done after their returning back to China.

5. This workbook comes into effect from 2018.

姓名Name: FADHEL ABDULLAH ABDULKAREM ABDULLAH		
电话Phone: 15888985329		E-mail: alqima7383@gmail.com
学生类别: <input type="checkbox"/> 中国政府奖学金 (Scholarship from Chinese government) <input type="checkbox"/> 孔子学院奖学金 (Scholarship from Confucius Institute) <input type="checkbox"/> 浙江省政府奖学金 (Scholarship from Zhejiang Provincial Government) <input type="checkbox"/> 浙江师范大学奖学金 (Scholarship from Zhejiang Normal University) <input type="checkbox"/> 自费 (Self-Financed) <input type="checkbox"/> 其他 (Others)		
入学时间(Date of Enrollment): 2015 年(yy) 9 月(mm) 1 日(dd)		
毕业时间(Date of Graduation): 2019 年(yy) 7 月(mm) 15 日(dd)		
实习时间(internship): 2018 年(yy) 8 月(mm) 1 日(dd)至to 2018 年(yy) 11 月(mm) 30 日(dd)		
实习单位(Name of the Intern Employer Unit): Mirans Technologie GmbH		
实习地址Address of the Intern Employer: Am Studio 2a, 12489 Berlin Germany		
实习单位联系人(Contacts of the Intern Employer): Abdulrahman Hamood	联系电话(Contact No.): +49 176 56418650	E-mail: info@mirans-tec.de
实习计划(Plan of the Intern Program):		
Date	full/part-time	Tasks
01.08.2018 - 15.8.2018	full-time	welcome, introduce, informations about the company. Create mockups, wireframes and prototypes for a new website.
16.08.2018 - 31.08.2018	full-time	program and design the website.
01.09.2018 - 15.09.2018	full-time	Add and edit the Access Rights for the internal web system.

16.09.2018 - 30.09.2018	part-time	create mockups, wireframes and prototypes for a new VoIP mobile app.
01.10.2018 - 30.10.2018	part-time	help with app development
01.11.2018 - 15.11.2018	part-time	maintain servers and websites in Lebanon and Syria
16.11.2018 - 30.11.2018	part-time	maintain servers and websites in Sudan and Yemen

班主任意见 (Comments by Class Adviser)	签名(Signature): ____年(yy)____月(mm)____日(dd)	辅导员意见 (Comments by Counselor)	签名(Signature): ____年(yy)____月(mm)____日(dd)
学院（机构）意见 (Comments by the College or Institute)	签名(Signature): 盖章(Seal) ____年(yy)____月(mm)____日(dd)		
本科教学部对国际生实习意见 (Comments by the Undergraduate Teaching Department)	签名(Signature): 盖章(Seal) ____年(yy)____月(mm)____日(dd)		
国际处意见 (Comments by the Department of International Exchange and Collaboration)	签名(Signature): 盖章(Seal)		

实习内容(Content of the Intern Program) :

1. Introduction

At the beginning of the internship I formulated several learning goals, which I wanted to achieve:

- Engaging and understanding work in a professional environment.
- Forecasting and determining job possibilities
- Apply gained skills and knowledge in the real world.
- Determine what skills and knowledge are necessary for the future.
- To learn more about Python, Javascript and Java.
- Get practical experience in an unknown environment.
- Enhance my communication skills.
- Build social connections and networks.

In the following chapter I will present ‘Mirans Technologie’, a VoIP company, where I have worked as an intern in the Software Development Department since August 2018.

This internship report also contains my activities that have contributed to achieve a number of my stated goals. Finally I give an evaluation on the internship experience according to my learning goals.

2. Presenting: ‘Mirans Technologie’

Mirans Technologie is a young and growing software company founded in Berlin Altglienicke, it provides Prepaid Calling Card Companies with a robust and modernized Call Center Solution based on state of the art VoIP mechanisms. Their systems are capable of handling customer service, support, telemarketing, telesales, and collecting functions.

Call centers generally use specialized telephone equipment to handle the large number of phone calls to maximize productivity. In their call center solution they use „Automatic Call Distributors“ ACDs to queue and route inbound calls to agents based on a wide number of criteria. Their solutions contain also a Predictive Dialer that monitors the status of agents and places calls on their behalf. They also provide the Call Center Tool with desktop integration (frequently referred to as “screen pop”), Interactive Voice Response (IVR) applications, call recording solutions, productivity monitoring utilities, workforce planning systems and various methods of historical and near real-time reporting.

- **Detailed description about Miran's Products and Services**

1. VoIP Wholesale Carrier

- First Routing
- Business Routing
- Least Cost Routing (LCR)

2. VoIP Reseller Partner

Reseller Services:

- Call Shop Service
- Calling Card Service
- Mobile VoIP Service
- IP Telephony
- IP Private Branch Exchange (PBX)
- DID Distribution

3. VoIP Call Shop:

Call Shop Service "RShop" provides a Complete Callshop Solution for use in countries where IP bandwidth is available & where VoIP can help to reduce heavily on international calling charges. Call shops can use the competitive Mirans Technologies GmbH termination services.

- **Features of Mirans Technologie:**

→ Integrating with security system:

Enable visitor entry, door locking, two-way conversations and other options.

This feature is not yet widespread in other VoIP companies.

→ Call analytics:

VoIP operates over the data network and integrates with other software, detailed reports regarding call costs, destinations, frequency, quality and other attributes can be generated periodically for analysis. These reports used for improving call quality and evaluating.

3. Job Profile

Nature of the Job

My job in Mirans was to work online in the Software development department. I was assisting a software developer. On the first day, I was introduced to the company's IT infrastructure.

In the beginning I was mainly observing the team and I asked questions about the process in the Software development department. In the first month my primary work was to create mockups, wireframes and prototypes for a new website and learn how to edit codes, which they already wrote.

Little by little I had to write codes by myself and after finishing coding, my supervisor tested the code with test cases.

Detailed description about the colleagues in the department

A small smart team of Python JavaScript and Java developers working online together on several tasks. The team was using Scrum, and even other non-software teams introducing scrum elements.

The team consisted of three people excluding me. Two of them have masters in engineering (MEng) and in Computer Science. The Supervisor has Diploma in IT. All of them have been working since the company was established.

We talk almost every week to discuss what we've enjoyed or disliked about the tasks.

All work and no play doesn't make a person happy, so we play online games together.

Specific Responsibilities of the Job

Basically, I had to:

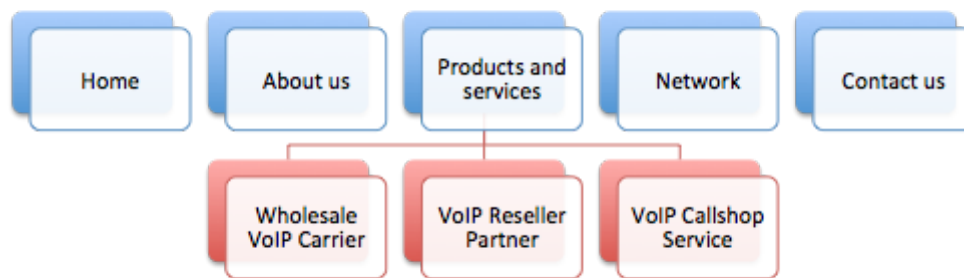
- Create mockups, wireframes and prototypes for a new website.
- Program and design the website.
- Create mockups, wireframes and prototypes for a VoIP mobile app.
- Maintain the created websites.
- Add and edit the Access Rights for the internal web system.
- Gather Information from SMS; like the SIM's balance, update in DB, so the employees can know when they have to refill the SIM. The SIMs are in several Arab countries, so most of the SMS's were in arabic and because arabic is my mother tongue, it was easy for me to do it.

Description the job tasks:

1. Create a website

- **PLANNING the website hierarchy:**

The creation of the information architecture is what makes it easy for the website's visitors to find what they are looking for and it will also have a good grasp on how to organize and label data in a way that is rational and logical, therefore I began with architecture hierarchy and send an example of it to my supervisor to check it.

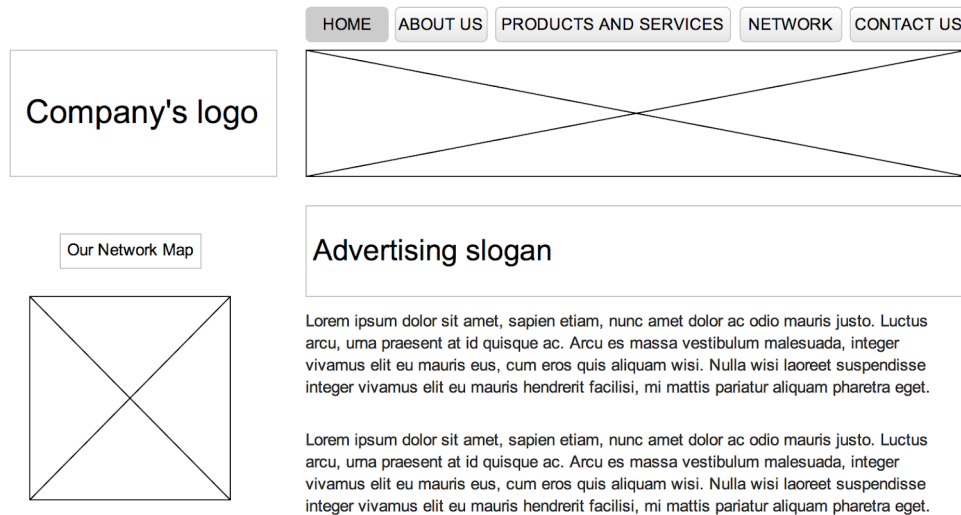


Last version of the website information architecture

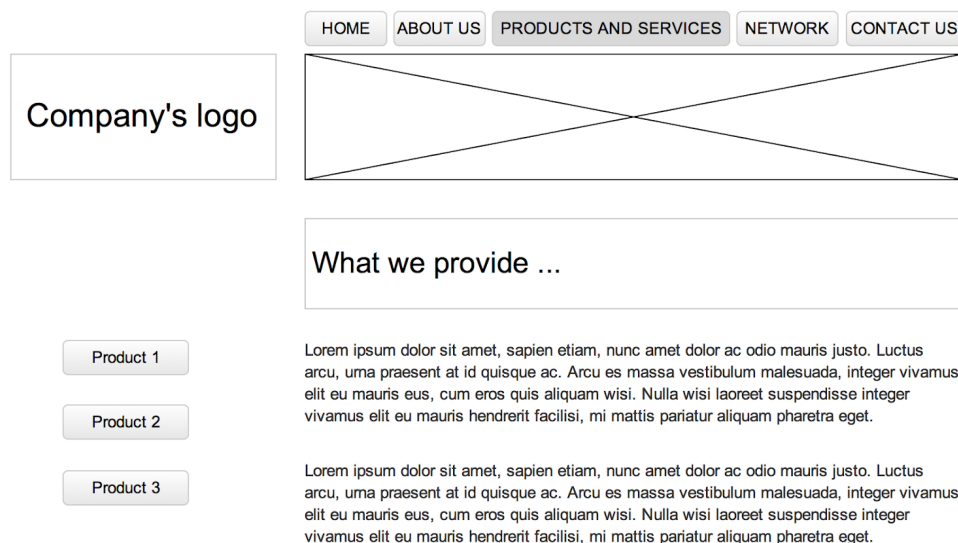
- **Wireframes for website:**

The next step was to create wireframes for the website's content.

I did use the “justinmind” tool to design the wireframes.



Example for a wireframe in the home page.



Example for a wireframe in the products and services page.

- **Website Implementation:**

Implementation is the process of building the web according to its design.

At this step, I could finally start creating the website itself. Graphic elements that have been designed during the previous steps were used to create an actual website. I began with the home page first, and then all sub-pages are added, according to the website hierarchy that was previously created in the form of a sitemap.

The implementation is done by HTML5 and CSS3.

2. Add and edit the Access Rights for the internal web system:

In Yemen, there are 3 Mobile Network Operators: Sabafon (l), MTN (m), Y (y). Each one of them have different commands either to refill the balance or to subscribe free minute.

The home office employees have different Access Rights some of them should refill the balance, when it is about to drop, some of them can't edit the SIM number,....etc.

After development the servers, my supervisor asked me to write the Access Rights for all the home office employees in the new servers.

```
"number",
"lastcheck",
"time_mfree"
],
"refill_charge": "False",
"refill": "True",
"Refillclass": "c3",
"mouseoverFunction": false,
"l": [
  "USSD SIM *102#____Check the balance____1",
  "USSD SIM *400*4#____Check the free minutes____1",
  "1SMS SIM 3111 1____Subscribe to 150 free minutes____1",
  "USSD SIM *101*refill_cardnumber#____Refill with 30 units____2",
  "USSD SIM *101*refill_cardnumber#____Refill with 80 units____2"
],
"m": [
  "USSD SIM *444#____Check the balance, only use it once a day____1",
  "USSD SIM *130*transferNumber*amount*simNumber#____transfer amount in Refill____7"
],
"y": [
  "USSD SIM *222#____Check the balance____1"
],
"select": [
  "id",
  "channel"
```

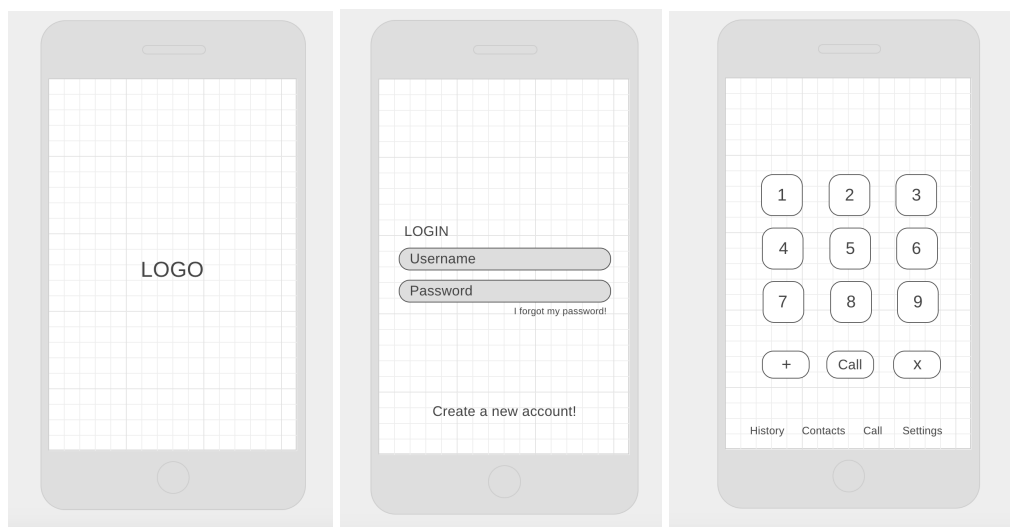
An example for Access Right's an employee, who can refill and subscribe.

3. Create mockups, wireframes and prototypes for a new VoIP mobile app:

- **App sketch:**

Before I did sketch the app using the online tool “minimal wireframing tool”, we met and had a brainstorm about how to build a VoIP app.

after sketching all the wireframes, I presented them to the team, and they gave me some notes.



First 3 pages of the VoIP app

- **Implement settings page:**

The team implemented the app in Java using an IDE called Android Studio. Based on JetBrains' IntelliJ IDEA software, Android Studio is an IDE designed specifically for Android development. My Task was to provide settings page for the app, so I used Android's Preference APIs to build an interface that's consistent with the user experience in other Android apps.

4. Maintain servers and websites in Lebanon, Syria, Sudan, Yemen:

❖ maintain serverd190, serverl180, servera160, servery200 :

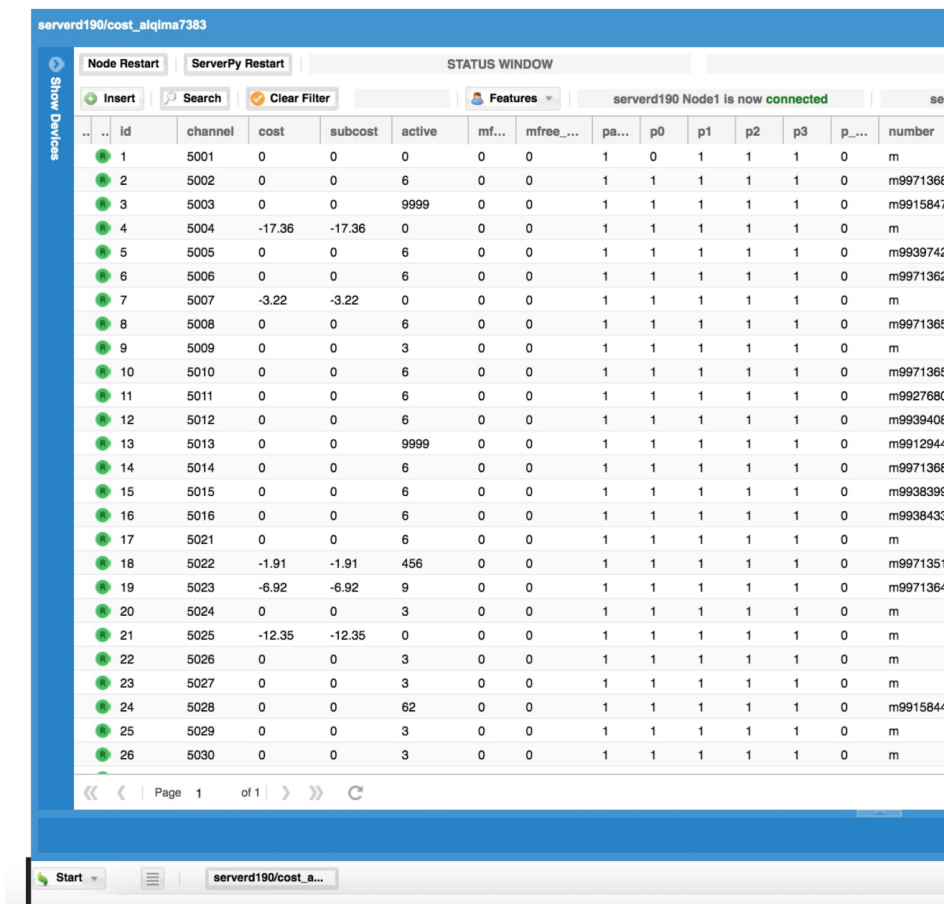
One of the servers I did work on, is serverd190, which was located in Sudan.

Each server had 4 tables (cost, USSD*, CDR**, SMS).

On the cost table, the SIMs list was ordered by ID. In the column “cost”, the SIM’s balance were continuously updated through reading the SMS and USSD text, which reach after every call to SMS or USSD tables.

The main tasks in maintenance was:

- Add / delete SIMs
- Add / delete column
- Updating data
- Extension of the table pages with new functions (e.g. Node Restart)
- Add tables for new servers.



Id	channel	cost	subcost	active	mf...	mfree...	pa...	p0	p1	p2	p3	p...	number
1	5001	0	0	0	0	0	1	0	1	1	1	0	m
2	5002	0	0	6	0	0	1	1	1	1	1	0	m9971368
3	5003	0	0	9999	0	0	1	1	1	1	1	0	m9915847
4	5004	-17.36	-17.36	0	0	0	1	1	1	1	1	0	m
5	5005	0	0	6	0	0	1	1	1	1	1	0	m9939742
6	5006	0	0	6	0	0	1	1	1	1	1	0	m9971362
7	5007	-3.22	-3.22	0	0	0	1	1	1	1	1	0	m
8	5008	0	0	6	0	0	1	1	1	1	1	0	m9971365
9	5009	0	0	3	0	0	1	1	1	1	1	0	m
10	5010	0	0	6	0	0	1	1	1	1	1	0	m9971365
11	5011	0	0	6	0	0	1	1	1	1	1	0	m9927680
12	5012	0	0	6	0	0	1	1	1	1	1	0	m9939408
13	5013	0	0	9999	0	0	1	1	1	1	1	0	m9912944
14	5014	0	0	6	0	0	1	1	1	1	1	0	m9971368
15	5015	0	0	6	0	0	1	1	1	1	1	0	m9938399
16	5016	0	0	6	0	0	1	1	1	1	1	0	m9938433
17	5021	0	0	6	0	0	1	1	1	1	1	0	m
18	5022	-1.91	-1.91	456	0	0	1	1	1	1	1	0	m9971351
19	5023	-6.92	-6.92	9	0	0	1	1	1	1	1	0	m9971364
20	5024	0	0	3	0	0	1	1	1	1	1	0	m
21	5025	-12.35	-12.35	0	0	0	1	1	1	1	1	0	m
22	5026	0	0	3	0	0	1	1	1	1	1	0	m
23	5027	0	0	3	0	0	1	1	1	1	1	0	m
24	5028	0	0	62	0	0	1	1	1	1	1	0	m9915844
25	5029	0	0	3	0	0	1	1	1	1	1	0	m
26	5030	0	0	3	0	0	1	1	1	1	1	0	m

“cost table” serverd190 in Sudan

* USSD: Unstructured Supplementary Service Data

** CDR: Call Detail Record.

- Gathered the important informations from SMS and USSD texts; like the SIM's balance, so the other employees can know when they have to refill the SIM. The SIMs are in several Arab countries, so most of the SMS's were in arabic language.

```

if(number[channel][0]=="m"):
    if(msg.startswith("بلغ تم اعادة")):
        subc=-1*(float(msg.split(" ")[9]))
        print "subc: "+str(subc)
        cursor.execute("""UPDATE cost SET cost=%s,subcost=%s,lastcheck=%s WHERE channel=%s """,(subc,subc,datetime.now(),channel,))
    if(msg.startswith("حسابك قد انشحن")):
        subc=-1*(float(msg.split(" ")[8].replace("دين","")))
        print "subc: "+str(subc)
        cursor.execute("""UPDATE cost SET cost=%s,subcost=%s,lastcheck=%s WHERE channel=%s """,(subc,subc,datetime.now(),channel,))
    if(msg.startswith("المفتترك")):
        subc=-1*(float(msg.split(" ")[9][-1]))
        print "subc: "+str(subc)
        cursor.execute("""UPDATE cost SET cost=%s,subcost=%s,lastcheck=%s WHERE channel=%s """,(subc,subc,datetime.now(),channel,))
    elif("مرحباً! لديك الرصيد المجاني" in msg):
        mfree=int(msg.split(" ")[5])
        cursor.execute("""UPDATE cost SET mfree=%s WHERE channel=%s """,(mfree,channel,))
        print "mfree: "+str(mfree)
        cursor.execute("""UPDATE cost SET cost=%s,subcost=%s,lastcheck=%s WHERE channel=%s """,(subc,subc,datetime.now(),channel,))
    else:
        pass
else:
    pass
except Exception, e:
    print "ERROR: "+str(e)

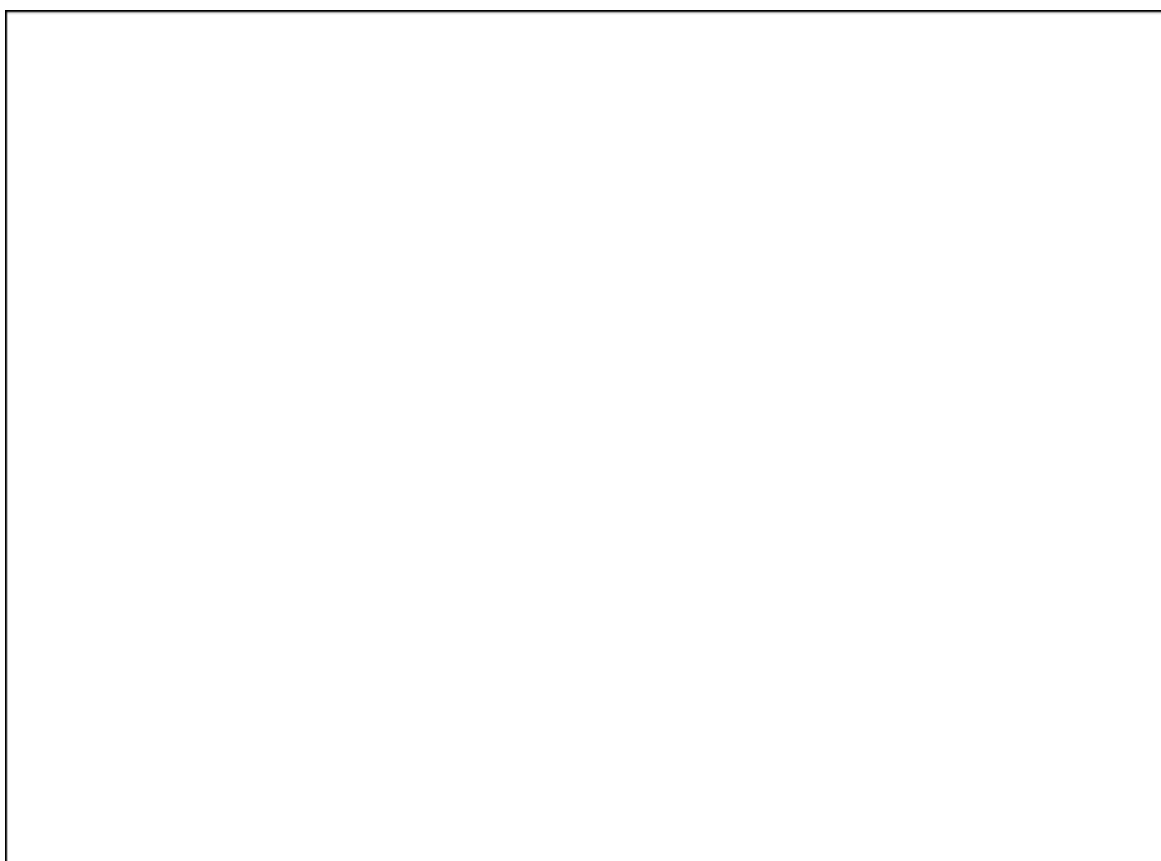
```

Python code for update the balance in the cost table

实习照片(Photos from the Intern Program to be attached here):



(以实习单位名称为背景的照片Photos with the name information of the intern Employer)



(在实习场所与实习单位指导教师、同事合影的照片Photos with Instructors and Colleagues of the Intern Employer)