```python
1  """
2  MCQ TEST CREATION SOFTWARE
3  STUDENT NAME: RUPESH SINGH
4  CLASS: 12
5  SECTION: A
6  ROLL NO. : 12125
7  """
8  #MCQ TEST GENERATOR
9
10 import os.path
11 #above library to check existence of file
12 def checker():          #checks whether the user is
    a student or teacher
13   print("WHO ARE YOU:")
14   print("1.TEACHER")
15   print("2.STUDENT")
16   interface=input("ENTER 1 OR 2 : ")
17   if(interface=='1'):
18     teacher()
19   elif(interface=='2'):
20       student()
21   else:
22     print("!INVALID INPUT! \n PLEASE RE-ENTE
   R \n  ENTER ONLY 1 OR 2 \n")
23     checker()
24
25 def linereader(file):            #to read file
26   read=file.readlines()
27   print("""FORMAT IS \n
28       QNO,QUESTION,OPTION A,OPTION B,OPTIO
```

```python
                N C,OPTION D,CORRECT,MARKS""")
29      for line in read:
30          c=line.split("~")
31          print(c)
32
33  def qdeletor(name,qno):                    #To delete a qu‐
    estion
34      a=open(name,"r+")
35      b=a.readlines()
36      a.close()
37      print("FORMAT \n questionumber,question,A‐
    ,B,C,D,CORRECT,MARKS")
38      l=len(b)
39      for i in range(0,l,1):
40          d=b[i]
41          c=d.split("~")
42          if(c[0]==qno):
43              b[i]=""
44              break
45          else:
46              continue
47      new=open(name,"w+")
48      for line in b:
49          if(len(line)==0 or len(line)==1):
50              continue
51          else:
52              new.write(line)
53              new.write("\n")
54      new.close()
55
```

```python
56    def qeditor(name):              #function to edit a que-
      stion
57      file=open(name,"r")
58      s=file.readlines()
59      file.close()
60      for i in s:
61          print(i)
62      qno=input("ENTER QUESTION NUMBER WHIC-
      H YOU WANT TO EDIT: ")
63      q=input("ENTER QUESTION: ")
64      optiona=input("ENTER OPTION A: ")
65      optionb=input("ENTER OPTION B: ")
66      optionc=input("ENTER OPTION C: ")
67      optiond=input("ENTER OPTION D: ")
68      correct=input("ENTER CORRECT OPTION A/B/C-
      /D:")
69      mark=input("ENTER MARKS FOR CORRECT AN-
      SWER: ")
70      line=qno+"~"+q+"~"+optiona+"~"+optionb+"~"+-
      optionc+"~"+optiond+"~"+correct+"~"+mark
71      h=""
72      for i in s:
73        c=i.split("~")
74        if(c[0]==str(qno)):
75          j=line+"\n"
76          h=h+j
77        else:
78          h=h+i
79      file=open(name,"w")
80      file.write(h)
```

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81      file.close()
82      print("QUESTION EDIT SUCCESSFUL")
83      m=input("WANT TO EDIT MORE QUESTION(Y/
   N): ")
84      if(m=="Y" or m=="y"):
85        qeditor(name)
86      else:
87        print("THANK YOU")
88
89  def timediff(starthour,startminute):          #to cal
   culate how many minutes completed
90      from datetime import datetime
91      x=datetime.now().time()
92      hour=int((str(x)[0:2]))
93      min=int((str(x))[3:5])
94      if(starthour==hour):
95        print(min-startminute,"MINUTES COMPLETE
   D.")
96        return min-startminute
97      elif(hour>starthour):
98        print((60-startminute)+min+(60*((hour-starth
   our)-1)),"MINUTES COMPLETED.")
99        z=(60-startminute)+min+(60*((hour-starthour)
   -1))
100       return z
101
102 def qdisplay(mcqname):              #DISPLAYS QUES
   TIONS TO THE STUDENT
103     from datetime import datetime
104     import time
```

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105     file=open(mcqname,"r")
106     s=file.readlines()
107     file.close()
108     a=datetime.now().time()
109     b=str(a)
110     starthour=int(b[0:2])
111     startminute=int(b[3:5])
112     points=0
113     print("CURRENT TIME IS",starthour,"HOURS AN
    D",startminute,"MINUTES.\n \n")
114     time.sleep(1)
115     print("TEST STARTS NOW")
116     for i in s:
117       y=i.split("~")
118       if(len(y)==0):
119          continue
120       else:
121         print("QUESTION: ",y[1],"\n")
122         print("OPTION A:",y[2])
123         print("OPTION B:",y[3])
124         print("OPTION C",y[4])
125         print("OPTION D:",y[5])
126         answer=input("ENTER ONLY OPTION IN CA
    PITAL LETTER: ")
127         if(answer not in ["A","B","C","D","a","b","c","d"]):
128            print("CHOOSE CORRECT OPTION,RETRY
    ONE MORE TIME.")
129            answer=input("ENTER ONLY OPTION: ")
130         if(answer==y[6] or answer==y[6].upper()):
131            points=points+int(y[7])
```

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132                timediff(starthour, startminute)
133             else:
134                timediff(starthour,startminute)
135                continue
136          else:
137             if(answer==y[6]):
138                points=points+int(y[7])
139             else:
140                continue
141          if(timediff(starthour,startminute)>len(s)):
142             print("TIME IS OVER.")
143             print("TEST OVER.THANK YOU STUDENT.")
144             break
145          else:
146             continue
147       print("DISPLAYING YOUR MARKS IN:")
148       for i in range(5,0,-1):
149          print(i,end=" ")
150          time.sleep(1)
151       print("YOUR MARKS IS",points)
152       return points
153
154
155    def refiner(name):              #rearrange questions so
        as to remover whitespaces and empty line
156       r=open(name,"r")
157       s=r.readlines()
158       r.close()
159       l=len(s)
160       t=open(name,"w+")
```

```python
161     for i in range(0,l,1):
162        s[i]=s[i].lstrip()
163        s[i]=s[i].rstrip()
164        if(len(s[i])==1 or len(s[i])==0):
165           continue
166        else:
167           t.write(s[i])
168           t.write("\n")
169     t.close()
170
171
172
173
174  def teacher():                              #starts teacher interface
175     print("WELCOME TO MCQ TEST GENERATOR")
176     tname=input("DEAR TEACHER, PLEASE ENTER YOUR NAME:")
177     subname=input("ENTER THE NAME OF SUBJECT: ")
178     task=input("""ENTER THE TASK,CHOOSE FROM BELOW: \n
179           1.CREATE A NEW MCQ TEST \n
180           2.EDIT AN MCQ TEST \n
181           3.SHOW MARKS OF STUDENTS \n
182           4.EXIT
183           ENTER ONLY THE RESPECTIVE NUMBER: \n""")
184     def questionmaker(file):                #function to add a new question
```

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185                qno=input("ENTER QUESTION NUMBER")
186                q=input("ENTER QUESTION: ")
187                optiona=input("ENTER OPTION A: ")
188                optionb=input("ENTER OPTION B: ")
189                optionc=input("ENTER OPTION C: ")
190                optiond=input("ENTER OPTION D: ")
191                correct=input("ENTER CORRECT OPTIO
     N A/B/C/D:")
192                mark=input("ENTER MARKS FOR CORR
     ECT ANSWER: ")
193                line=qno+"~"+q+"~"+optiona+"~"+optio
     nb+"~"+optionc+"~"+optiond+"~"+correct+"~"+m
     ark
194                file.write(line)
195                file.write('\n')
196                a=input("WANT TO ENTER MORE QUES
     TIONS(Y/N): ")
197                if(a=="y" or a=="Y"):
198                    questionmaker(file)
199                else:
200                    file.close()
201                    print("YOUR MCQ HAS BEEN SAVED")
202     if(task=='1'):
203        def new():        #function to create a new mcq fi
     le
204            name=input("ENTER THE NAME OF MCQ TE
     ST: ")
205            filename=name+"_"+tname+"_"+subname+"
     .txt"
206            if os.path.exists(filename)==True:        #so th
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```python
      at previous file is not deleted
207         print("MCQ WITH THE SAME NAME ALR
EADY EXISTS \n PLEASE USE ANOTHER NAME")
208         new()
209       else:
210         print("THE NEW MCQ FILE IS CREATED WI
TH NAME:",filename)
211         file=open(filename,"w+")
212         questionmaker(file)                #adds a ne
w question
213       rep=input("WANT TO CREATE ANOTHER MC
Q TEST? : Y/N")
214       if(rep=="Y" or rep=="y"):
215         new()
216     new()                              #creates a new mc
q file
217   elif(task=='2'):        #edit an existing mcq file
218     def edit():
219       name=input("ENTER THE FULL NAME OF MC
Q TEST WHICH YOU WANT TO EDIT WITH .txt EX
TENSION: ")
220       if os.path.exists(name)==False:
221         print("THIS FILE DOES NOT EXIST, PLEA
SE RE-ENTER THE FILE NAME:")
222         edit()
223       else:
224         choose=input("""SELECT THE TASK: \n
225                 1.EDIT A QUESTION \n
226                 2.ADD MORE QUESTIONS \n
227                 3.DELETE A QUESTION \n
```

```python
228                    ENTER ONLY 1 OR 2: \n""")
229          if(choose=="1"):              #edit a question
230              qeditor(name)
231          elif(choose=="2"):         #add more questi‐
ons
232              file=open(name,"a+")
233              questionmaker(file)
234          elif(choose=="3"):         #deletes a question
235              file=open(name,"r+")
236              linereader(file)
237              delno=input("ENTER THE QUESTION NU‐
MBER YOU WANT TO DELETE: ")
238              qdeletor(name, delno)
239              print("DELETED.")
240              m=input("WANT TO EDIT MORE QUEST‐
ION(Y/N): ")
241              if(m=="Y" or m=="y"):
242                  qeditor()
243              else:
244                  print("THANK YOU")
245          refiner(name)
246       edit()
247    elif(task=="3"):
248       stumark=open("studentmarks.csv","r")
249       r=stumark.readlines()
250       for line in r:
251           o=line.split(",")
252           print("STUDENT NAME: ",o[0])
253           print("CLASS: ",o[1])
254           print("SECTION: ",o[2])
```

```python
255             print("ROLL NO.: ",o[3])
256             print("MCQ NAME:",o[4])
257             print("MARKS:",o[5])
258     elif(task=="4"):
259         print("THANK YOU")
260     else:
261         print("! INVALID INPUT !\n   RE-ENTER CORR
    ECT NUMBER")
262         teacher()
263     ask=input("WANT TO GO TO MAIN MENU? : (Y/
    N)")
264     if(ask=="Y" or ask=="y"):
265         teacher()
266     else:
267         print("THANK YOU")
268
269
270 def student():                #starts student interface
271     print("WELCOME STUDENT")
272     sname=input("DEAR STUDENT,ENTER YOUR NA
    ME: ")
273     sclass=input("ENTER YOUR CLASS IN DIGITS: ")
274     ssec=input("ENTER SECTION IN CAPITAL LETT
    ERS: ")
275     sroll=input("ENTER YOUR ROLL NUMBER IN DI
    GITS: ")
276     mcqname=input("ENTER FULL FILE NAME OF TH
    E MCQ TEST YOU WANT TO GIVE WITH .txt EXTE
    NSION: ")
277     if os.path.exists(mcqname)==False:
```

```python
278        print("MCQ FILE WITH NAME",mcqname,"DO-
       ES NOT EXISTS \n ENTER ANOTHER NAME")
279        student()
280    else:
281        import time
282        file=open(mcqname,"r")
283        s=file.readlines()
284        file.close()
285        print("\n GENERAL INSTRUCTIONS FOR THE T
       EST \n")
286        time.sleep(1)
287        print("1.THE PAPER CONSIST OF",len(s),"QUE-
       STIONS \n")
288        time.sleep(1)
289        print("2.YOU HAVE",len(s),"MINUTES TO COM-
       PLETE THIS TEST.\n")
290        time.sleep(1)
291        print("3.ONE MARKS WILL BE DEDUCTED FO-
       R EACH EXTRA MINUTE TAKEN TO COMPLETE TH-
       IS TEST.\n")
292        time.sleep(1)
293        print("4.CHECK THE TIME THROUGH THE SY-
       SYEM CLOCK.\n")
294        time.sleep(1)
295        print("5.NO NEGATIVE MARKING.\n")
296        time.sleep(1)
297        print("6.OPTION ONCE CHOSEN WILL NOT BE-
       CHANGED,BE CAREFUL.\n")
298        time.sleep(1)
299        print("7.BEST OF LUCK FOR THE TEST.\n")
```

```python
300          time.sleep(1)
301          ready=input("""ARE YOU READY FOR THE TE
      ST(Y/N)\n
302                  YOUR TIME START AS SOON AS YOU EN
      TER Y : """)
303          if(ready=="Y" or ready=="y"):
304             print("YOUR TEST STARTS IN:")
305             for i in range(5,0,-1):
306                print(i,end=" ")
307                time.sleep(1)
308             print("0")
309             time.sleep(1)
310          marks=qdisplay(mcqname)
311          stufile=open("studentmarks.csv","a")
312          p=str(sname+","+sclass+","+ssec+","+sroll+","+
      mcqname+","+str(marks))
313          stufile.write(p)
314          stufile.write("\n")
315          print("YOUR MARKS IS SAVED")
316
317 checker()                    #STARTS THE PROGRAM
```