



RENTSPOT

CA472 EC Final Year Project

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What is RentSpot?

- property rental platform aimed at digitizing the process of applying for a property viewing
- help both landlords and tenants by pre-screening tenants based on their profile information
- landlords can view tenants profiles once they have applied for a viewing
- 'Add A Guarantor' feature that allows tenants to broaden their spectrum of the property search
- control to the flow of applications



Revised Business Case



- Handling property leases
- Rent payment system
- Administer rent to landlord
- Deposit holding system

- Guarantor
- Data storage and security?
 - Data requested by landlords
 - PPS, landlord/employment references
 - Photo ID, evidence of residency
 - Bank statements, payslips
- Pricing model



RENTSPOT

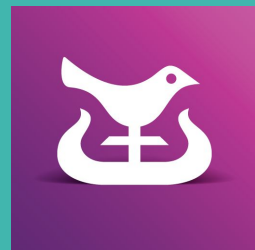
Market Research

Primary research

- Market survey - 62 participants - 52 tenants, 9 landlords
- Interviews - 2 landlords from ROI

Secondary research

- Daft, RTB and AIB quarterly/annual reports
- News articles

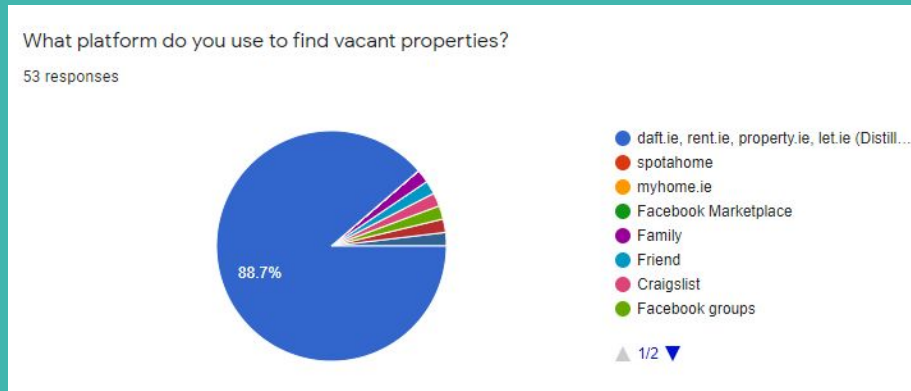


Primary/Secondary Research

- Validate that the market exists
- Competitors within ROI
- Chosen pricing model
- Understanding of the target market and different industry trends

AREAS	15-Mar
Central Dublin	↑ 195%
Rest of Dublin	↑ 24%
Rest of Country	0%

Figures indicate year-on-year change



Business Model



Distilled Media Competitor Profile

Advert type	Featured	Premium	Standard
Cost per listing	€189	€99	€59
Amount of days live*	90 days	90 days	90 days
Unlimited Photos	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>Rent.ie</u> listing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>Property.ie</u> listing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Free Rental Contract**	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
High Priority Listing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>Let.ie</u> listing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lead Assurance***	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Extra Large Ad Format	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Business Model

daft.ie Media Competitor Profile

Advert type	Featured	Standard
Cost per listing	€149	€59
Amount of days live*	90 days	90 days
Unlimited Photos	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Rent.ie listing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Property.ie listing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Free Rental Contract**	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
High Priority Listing	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Let.ie listing	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lead Assurance	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Extra Large Ad	<input checked="" type="checkbox"/>	<input type="checkbox"/>

myhome.ie MyHome Competitor Profile

Advert type	Featured	Premium	Standard
Cost per listing	€79	€50	€30
Amount of days live***	90 days	90 days	90 days
Listing on IT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Listing on Examiner	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Unlimited Photos	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Highlight in Search**	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Homepage Feature Ad*	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

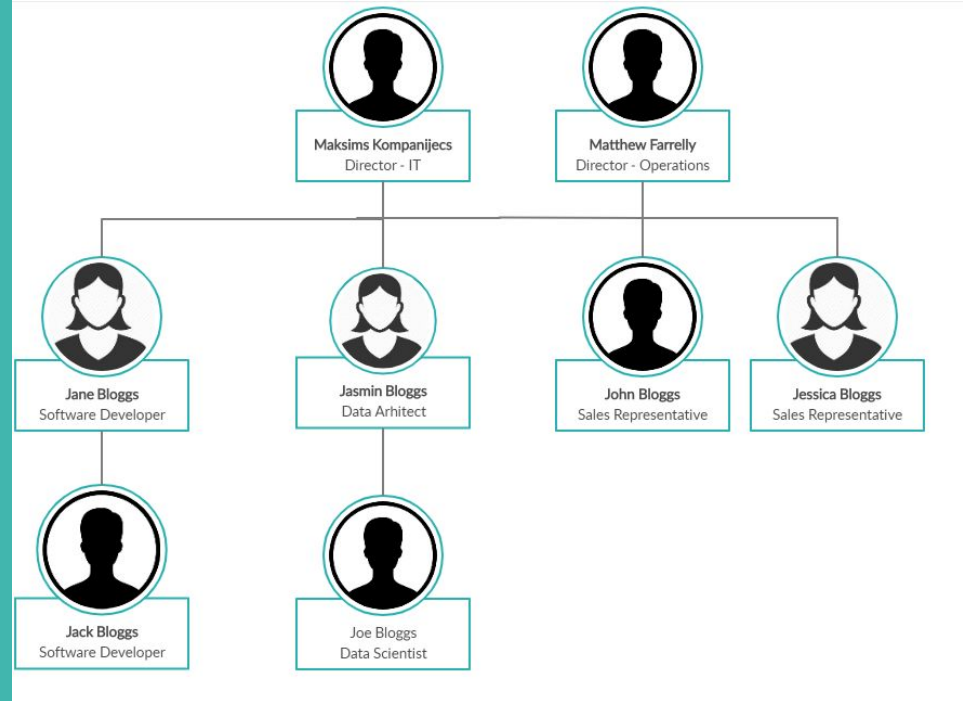
Business Model

RENTSPOT Profile	
Type	Standard Listing
Cost	€50
Amount of days live*	-
Unlimited Photos	<input checked="" type="checkbox"/>
Tenant/Property Reviews	<input checked="" type="checkbox"/>
Tenant Profiles**	<input checked="" type="checkbox"/>
Schedule Viewings***	<input checked="" type="checkbox"/>
Filter Applications****	<input checked="" type="checkbox"/>
Type	Application
Cost	€0.50 p/a
Type	Host viewing*****
Cost	€120

daft.ie		Media Com	File
Advert type	Featured	Standard	
Cost per listing	€100	€59	
Amount of days live*	90 days	90 days	
Unlimited Photos	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Rent.ie listing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Property.ie listing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Free Rental Contract**	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
High Priority Listing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Let.ie listing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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Organizational structure

- Year 1
 - 1 x Software Developer
 - 1 x Sales Representative
- Year 2
 - 1 x Software Developer
 - 1 x Sales Representative
 - 1 x Database Architect
- Year 3
 - 1 x Data Scientist



Key financial assumptions

- RentSpot is enrolled into [New Frontiers start-up programme](#)
 - Support package 55k over 3 phases
- Application development only takes 4 months
- RentSpot goes live in May



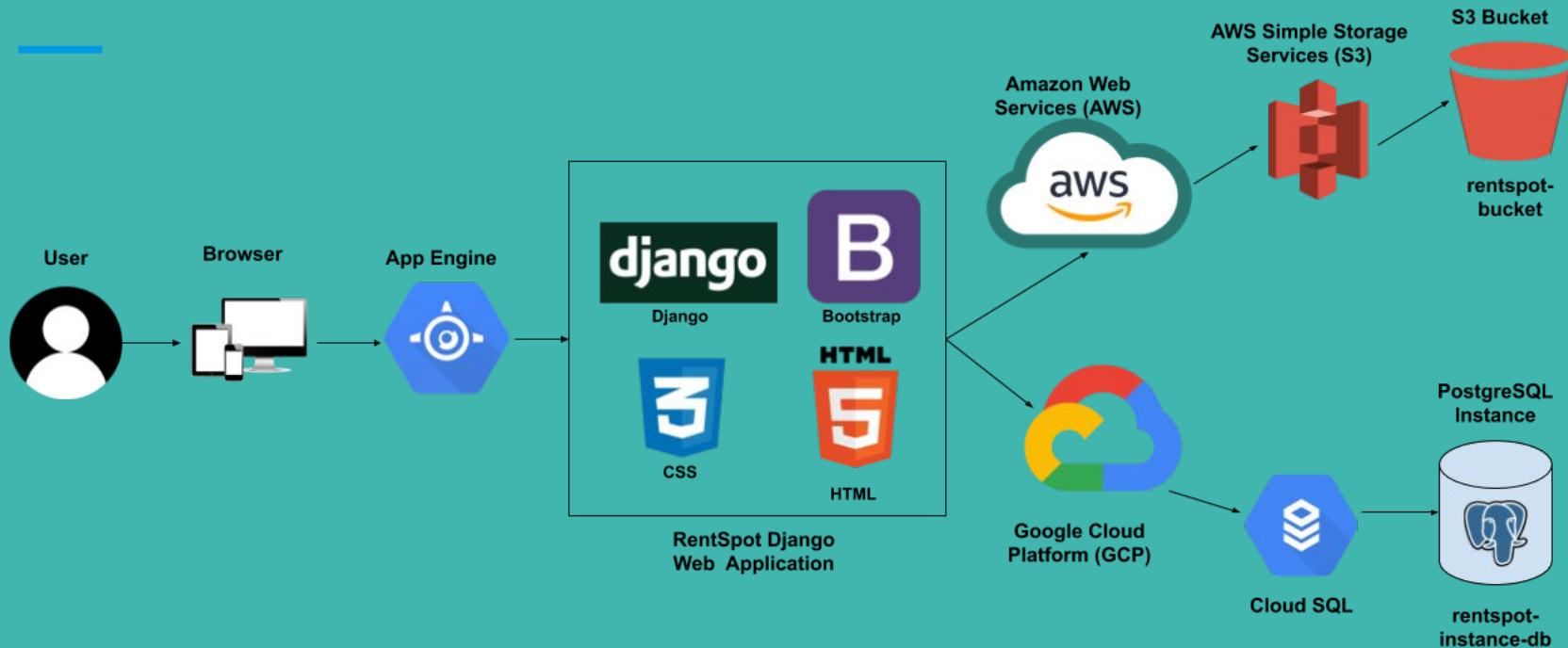
Three Year Financial Projections

	Properties	Income	Expenses	Profit
Year 1	1,788	€196,252	€181,581.33	€15,444.04
Year 2	3,981	€318,480	€305,831.37	€ 28,092.67
Year 3	5,950	€484,925	€383,281.72	€129,735.95

RentSpot' biggest expense is employee costs, marketing and cloud costs

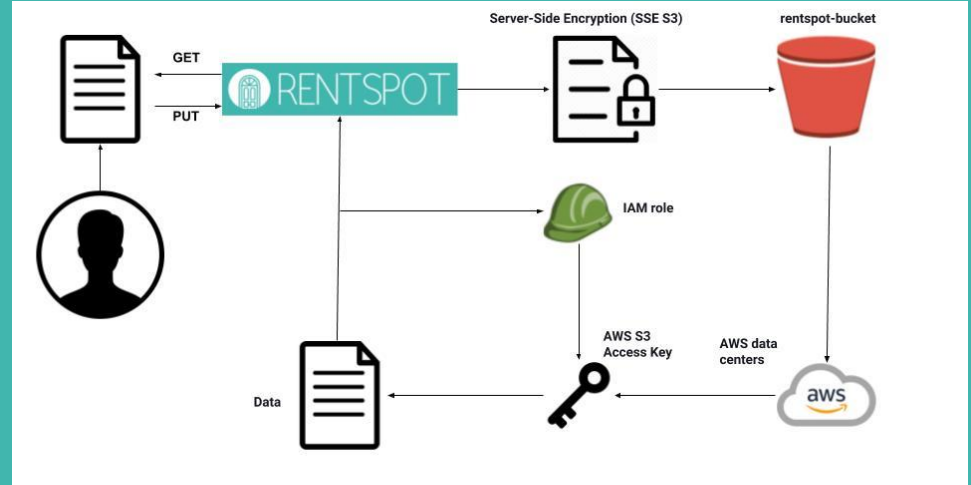


Architecture



Data encryption and security

- User data is encrypted by using Cloud SQL and AWS Simple Storage Services
- Data encrypted using server-side encryption (AES-256)
- Encrypted when stored, decrypted upon access/download



New skills

- Web application development + deployment
- Interface mockup design
- Version control
- Project management
- Database design
- Technical writing

Future work

- Payment system
 - Tenant account wallet,
 - Landlord listing fee
- Deposit holding system discussed with RTB
- Lease template for landlords and tenants
- Operations behind host viewing
- Save property and tenant data with lease dates

Source code highlights

```
<div class="card border border-dark bg-warning text-center text-dark" style="...">
  <p>All applicants must have yearly income of equal or over €{{project.tenantSalary}} apply for this property.</p>
  {% if tenant_profile.salary >= project.tenantSalary %}
    <p>You meet this requirement </p>
  {% elif tenant_profile.both_salary >= project.tenantSalary %}
    <p>You meet this requirement with your Guarantor </p>
  {% else %}
    <p>You don't meet this requirement, please '<a href="{% url 'profile' %}">Update your profile</a>' <img src="" style="height: 30px; width:30px;"></p>
  {% endif %}
</div>
```

All applicants must have yearly income of equal or over €20000 apply for this property.

You meet this requirement ✓

SpotOn!

Source code highlights

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<div class="card border border-dark bg-warning text-center text-dark" style="...">
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</div>
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All applicants must have yearly income of equal or over €20000 apply for this property.

You meet this requirement with your Guarantor ✓

SpotOn!

Source code highlights

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<div class="card border border-dark bg-warning text-center text-dark" style="...">
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  {% endif %}
</div>
```

All applicants must have yearly income of equal or over €20000 apply for this property.

You don't meet this requirement, please 'Update your profile' ❌

Source code highlights

```
@login_required
def createListing(request):
    if request.method == 'POST':
        # Listing form collects basic data about the property
        listing_form = CreatingListingForm(request.POST, request.FILES)
        # allows to upload multiple images per property
        image_form = ImageForm(request.POST, request.FILES)
        images = request.FILES.getlist('images')
        if listing_form.is_valid() and image_form.is_valid():
            link = listing_form.save(commit=False)
            link.landlord = request.user
            link.save()
            # Links property images to the Property_Images object
            for i in images:
                image_instance = Property_Images(images=i, property=link)
                image_instance.save()
            messages.success(request, f'Your listing has been created!!')
            return redirect('/portal/', args=link.pk)
        else:
            listing_form = CreatingListingForm()
            link = listing_form
            image_form = ImageForm()

    return render(request, 'createListing.html', {'listing_form': link, 'image_form': image_form})
```

The screenshot shows a mobile application interface for 'RENTSPOT'. At the top, the status bar shows the time 21:33 and various icons. Below the status bar, there's a navigation bar with the 'RENTSPOT' logo and a hamburger menu icon. The main header area displays a user profile icon and the name 'landlord1'. Below this, there's a section titled 'Create New Listing'. The first part of this section asks the user to 'Select an image that describes this property best*' and provides a 'Choose File' button with the text 'no file selected'. Below this, there are three text input fields labeled 'Street1*', 'Street2*', and 'County*'. The 'County*' field has a dropdown arrow. At the bottom, there's a 'Type of property*' dropdown menu with 'House' selected. The bottom of the screen shows a standard mobile OS navigation bar with back, forward, share, bookmark, and tab icons.

Source code highlights

```
def project_detail(request, pk, *args, **kwargs):
    project = Properties.objects.get(pk=pk)
    applyButton = Property_Applications.objects.filter(listing=project)
    propertyReview = Property_Reviews.objects.filter(property=project)
    # getting the urls
    property_images = Property_Images.objects.filter(property=project)
    # context that's displayed to all users
    context = {
        'project': project,
        'propertyReview': propertyReview,
        'property_images' : property_images,
    }
    if request.user.is_authenticated:
        if request.user.last_name == 'False': # allows to tenant to view ads and apply for them if they meet the requirements
            tenant_profile = Tenant_Profile.objects.get(tenant=request.user.tenant_profile.tenant_id)
            if request.method == "POST":
                applyButton = Property_Applications(
                    user=request.user,
                    listing=project,)
                applyButton.save()
            # adding more relevant context if user is tenant
            context['applyButton'] = applyButton
            context['tenant_profile'] = tenant_profile
        if request.user.last_name == 'True':
            if request.user.landlord_profile.landlord_id == project.landlord_id: # if the landlord owns this ad, this let's him edit the ad
                if request.method == 'POST':
                    # ManageMyListingForm allows landlords to edit info about their properties - property can also be paused
                    change_listing_form = ManagelistingForm(request.POST, request.FILES, instance=project)
                    if change_listing_form.is_valid():
                        change_listing_form.landlord = request.user.landlord_profile
                        change_listing_form.save()
                        messages.success(request, f'Your account has been updated!')
                    else:
                        change_listing_form = ManagelistingForm(instance=project)
                        messages.info(request, f'Click "Manage My Spot" to pause or edit listing details')
                        context['change_listing_form'] = change_listing_form
    return render(request, 'project_detail.html', context)
```